

The CHILDREN'S NEWSPAPER

AND CHILDREN'S PICTORIAL

The Story of the World Today for the Men and Women of Tomorrow

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TWO THOUSAND YEARS AGO THIS MONTH

One of the Most Illustrious Figures in the World

It is two thousand years this month since the birth of one of the most illustrious figures in the world.

He is the man after whom last month is named, Augustus. The mail-clad ruler of the world, he made a manger sacred and immortal as the birthplace of an empire compared with which the empire of Rome was almost nothing. Who has not seen him standing magnificent in bronze as the splendid Caesar, seeming, as somebody has said, as if he were speaking those words which Virgil wrote of him: *Din of arms shall cease, and days of hardship shall be softened.*

A Lovely Sculpture

We see him again as a young man; who has not seen the picture of the Young Augustus, whose lovely face enthralled all travellers in the Vatican? We cannot look at him, at this face as gentle as a woman's, without the thought that the burden of empire must have been heavy on his mind. *Might this gentle Roman not have saved mankind if he had met the Man of Galilee?*

If they could have sat here in the Capitol, looking over Rome as Christ looked over Jerusalem, and could have talked for an hour, would not this young Augustus Caesar have believed, and would he not, accepting the simple faith of Nazareth, have altered the course of Rome and the course of the world? There would have been no Crucifixion, Jesus would have conquered the world in His own day, the long and terrible history of Christianity would have been changed, and the mind of man cannot conceive the glory that might have been.

His Name Among the Months

There is an almost unparalleled significance in this anniversary. For the first time we are to acclaim the two-thousandth anniversary of the birth of an emperor, and he the first of emperors, Augustus, master of the world, who was born on September 23 in the year 63 B.C.

After the lapse of twenty centuries he is as real a personality to us as Alfred or Cromwell. He is in the calendar; August is named after him; it was his special month, and to make it equal the length of the month named July, after Julius Caesar, he took a day from February and added it to August.

We meet Augustus everywhere in history and literature. It was one of his acts which led to Jesus being born in the manger at Bethlehem:

There went out a decree from Caesar Augustus that all the world should be taxed . . . and Joseph went unto the city of David which is called Bethlehem to be taxed with Mary.

To Shakespeare he is the Octavius Caesar of two great plays, and the Augustus named in a third play as the Roman Emperor to whom Cymbeline at last agrees to resume paying tribute.

The man who was to make so towering a figure in history was the grand-nephew of Julius Caesar, who adopted him as his son and made him his heir. Following the murder of Caesar, Augustus, then a boy of 18, ignored the anxious advice of his family by emerging from the modesty in which he had been living to claim his due as Caesar's representative.

With great daring and guile he confronted the assassins and other claimants to rule and territory. He gained military aid, he fought successful battles; he was at Philippi; and the day came when he and Lepidus and Mark Antony met on a little river island to divide the world between them.

Dividing Up the World

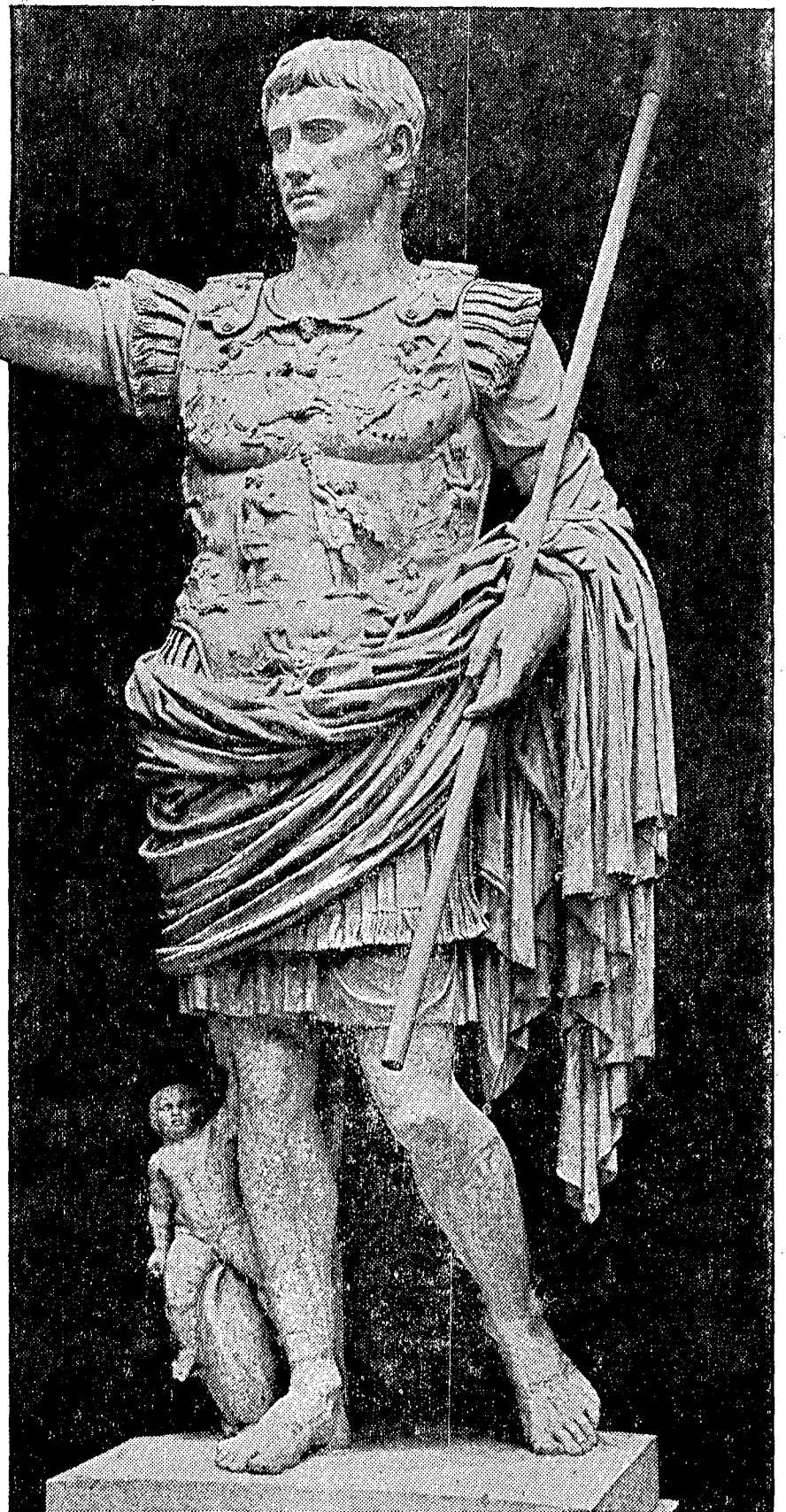
Nothing could better illustrate the state to which battle and murder had brought the Romans than the preliminaries to that historic conference. Each claimant was attended by five legions, but each left his men at a distance and advanced alone. Lepidus was the first to approach the island; as he did so he anxiously examined the reeds lest an ambush should await him; Mark Antony and his young rival had each to submit to a search for arms hidden in their clothing.

The settlement they effected that day did not last long; Lepidus was soon brushed aside, and later came the war between Augustus and the allied forces of Antony and Cleopatra, ending in the victory of Augustus and the death and burial in the same Egyptian grave of Antony and the woman for whom he threw away half the world.

Creating the Roman Peace

Augustus was now nominally a minister of the State, a State which, from a city, had grown into an empire which possessed all Italy, the old Greek empire, all Africa as far as its desert boundaries, a great part of Asia, Gaul, and other parts of Europe. The empire exceeded the power of the State to govern it, and Augustus applied himself to the creation of a system which should end war and give the empire peace and justice.

In order to do so he slowly and quietly gathered all power into his own hands, the power of the State, of the Army, and of the Church. His armies had one bad reverse in Germany, but it was his boast that he had created the Roman Peace.



THE MAIL-CLAD RULER OF THE WORLD, AUGUSTUS

He gathered about him the greatest poets and scholars of the age, among them Virgil, Horace, Ovid, Catullus, and Livy. He found Rome built of brick and left it built of marble. His system of government formed the model for all Europe for centuries to come.

He was wise and tolerant. One lesson he left which modern dictators might copy. He was just and gentle to the Jews, of whom Rome had many thou-

sands; in order that they might not break their Sabbath he altered the day on which free bread was distributed, so that they neither hungered nor offended against their religion.

Amid all its vast splendour of wealth and intellect Rome was a city of contrasts. It worshipped many gods in its shrines, but made fun of them in its theatres. There is a startling picture in

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PIRACY IN THE MEDITERRANEAN

An Evil That Must Be Stamped Out

FRANCE AND ENGLAND CALL FOR A COMMON EFFORT

All maritime nations have been seriously concerned at the recent outrages that have been committed against shipping passing through the Mediterranean.

France and England, who, with Italy, make most use of this important waterway, have been roused to action by a series of deeds which recall the cruellest forms of piracy. Not only have they declared that they will counterattack with their full naval might any vessel interfering with merchant ships about their lawful business, but they invited all the powers, except Spain, which border on the Mediterranean and Black Seas to a conference at Nyon, near Geneva, to secure joint action. They invited Germany too; and Holland, Belgium, Poland, and the Scandinavian countries quite as deeply concerned.

Submarine Attacks

Germany, it will be remembered, withdrew her warships from the international control of Spanish coasts when the Deutschland was bombed and the Leipzig attacked by a torpedo last April. Since then French, Danish, Russian, Italian, and British ships have been attacked by bomb, shell, or torpedo. Some of these attacks have been made in the Eastern Mediterranean, and the appalling feature of those made by submarines is that the torpedo is discharged without warning and the sailors on the stricken ship are left to their fate.

This callous treatment of merchantmen is against the principles of submarine war which the nations have agreed to observe even when at war, and the attacks are, of course, contrary to all international law. For whatever have been the rivalries between them in the past century civilised nations have always regarded the pirate ship as the enemy of their common civilisation.

Before the Great War it was always regarded as the special function of our Navy to suppress the pirates who swooped out from their lairs in Malaya and China to prey on merchant shipping, and it was the rule of the high seas that any warship of any nation would take part in this humanitarian work.

The Barbary Pirates

It was Cromwell who sent Blake against the Barbary pirates in the Mediterranean, and in the year after Waterloo our fleet bombarded Algiers and secured the release of hundreds of captives from every nation trading in the Mediterranean. Even after this pirate ships troubled that sea, and continued to do so until France conquered Algeria in 1830.

With the exception of the English Channel there is no waterway in the world so frequented by ships as the Mediterranean. Not only has it a vast trade of its own, but nearly three million tons of the world's ships pass through it to and from the Suez Canal every month, British ships being actually less than half.

The menace to civilisation is intolerable, and no nation calling itself civilised can suffer it to continue if civilisation itself is to be preserved.

Last Month's Weather

| LONDON | | RAINFALL | |
|-------------|-----------|------------|-----------|
| Rainfall | 2.99 ins. | Aberdeen | 2.71 ins. |
| Sunshine | 210 hrs. | Chester | 1.45 ins. |
| Wet days | 5 | Tynemouth | 1.37 ins. |
| Dry days | 26 | Birm'ham | .98 ins. |
| Hottest day | 6th | South'pton | .86 ins. |
| Wettest day | 13th | Falmouth | .47 ins. |
| Coldest day | 27th | Gorleston | .27 ins. |

WONDERS TO COME MORE AND BETTER FACTORIES

Men and Inventions

The old controversy about men and machines continues. American scientists, as a result of the work of the National Resources Committee, have warned President Roosevelt that the scientific advance of the next 20 or 25 years will have a drastic effect on work and employment.

Among other things, it is predicted that these changes may be expected:

Motor-caravans and trailers will be increasingly used as homes and shops.

Houses will be ready-made and brought in sections to sites instead of being built on sites. The kitchen equipment will be made as a unit, and so on.

Cotton-picking will be done by machine, displacing much labour.

The electric-eye, the foundation of talking pictures, will be greatly extended in usefulness.

Plastic materials (synthetic) will displace wood, metal, and glass.

Rubber will be all synthetic and produced at the rate of 100 tons an hour, as compared with 500 lbs of natural rubber from an acre of plantation in five years.

Artificial cotton and wool will be as supreme over the natural products as artificial silk is now over real silk.

Aeroplanes will land on house roofs.

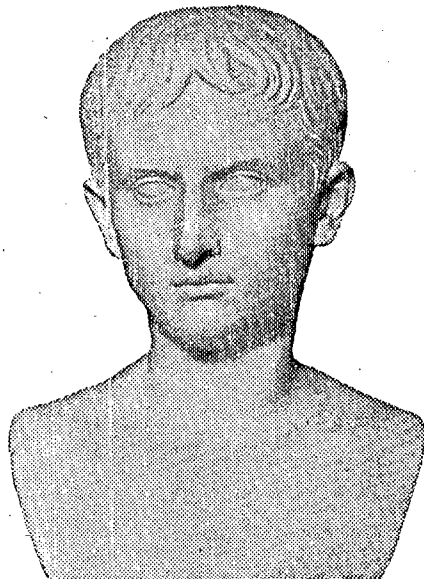
If we wish to measure the rate of modern progress we have only to recall that the English Channel was flown for the first time by Blériot in 1909!

AUGUSTUS CAESAR

Continued from page 1

one of the poems of Horace of a carpenter wondering whether to make a block of wood into a bench or a god, and deciding for the deity.

Augustus, himself worshipped as a god, having suffered a loss of ships at sea, caused the statue of Neptune, the Roman god of the ocean, to be brought from its temple, whereupon he solemnly degraded it. Scholar, soldier, lawgiver, he shared the superstitions of his age, and at the coming of a thunderstorm always put on a magic garment.



The bust of the young Augustus in the Vatican Museum

Here he was a son of his age. His early career was stained by bloodshed, as was inevitable in such a world, and he has been censured for the cunning with which he gradually absorbed into his own hands all the functions of the State. But he ruled in equity; he gave the world peace; he made travel wider and more free than it ever was afterwards until the 19th century. And when he died his last words to his wife were these: Remember, Livia, our happy married life. Our proudest literary period in England after Shakespeare was in the reign of Queen Anne; and the noblest title we could give it was the Augustan Age.

Too Many in London TOO FEW IN WALES AND SCOTLAND

The last official factory record is good, but not altogether so. In 1936 551 new factories were opened and 201 extended, while 386 old factories were closed. This means a big net gain, especially as the new factories are so much better built and furnished than the old.

London still grows as a working centre. Greater London had 261 of the 551 new factories built last year. This is not good. The London problem is serious enough, and it is high time that the public interest took a hand in the matter.

Turning to other districts, we find that Wales last year gained four new factories and lost three old ones.

Scotland was almost as bad, with 26 new factories, but with 14 old factories closed down.

This is not the planning of industry or of the nation, but the very reverse. It appears that some lessons are hard to learn.

AMERICA LAGS 50 YEARS

Indictment of U S Housing

The leader of the London County Council, Mr Herbert Morrison, declared, upon returning from a tour of the United States, that in housing America is at least 50 years behind Britain. This severe verdict is justified by other observers.

The many films we get from America reveal again and again that while luxurious apartments, or flats, are commanded by the rich, the masses of America are housed in conditions which would not be tolerated by our laws, imperfect as these are.

A competent observer who visited American industrial centres in the height of the trade boom after the war tells how he found the workers in a great steel works housed in evil streets that ran with black mud.

The mean streets of the big centres are lined with tall slummy apartment houses let at surprisingly high rents.

When Railways Were New

The excuse put forward nearly 100 years ago for a train from Birmingham being nearly three hours late at Euston makes strange reading today. It was that it waited 163 minutes for a connecting train from the Grand Junction Railway.

This statement occurs in some evidence prepared by the London and Birmingham Railway for the Parliamentary Inquiry into the state of communication by railway in 1839.

The document, which has been discovered in a railway office at Hunts Bank, Manchester, gives many other reasons for the late running of trains, including pumps of engine out of order, high winds and shortage of steam, slippery rails, and bad coke. Coke, not coal, seems to have been burned in these early locomotives.

25 Hours in the Sea

Inhabitants of Panama City, on the north coast of the Gulf of Mexico in Florida, were surprised to see a sailor swim ashore the other morning. He was one of the crew of 25 of a coastal steamer which had sunk 25 hours earlier with the loss of all but this hardy seaman.

LITTLE NEWS REEL

Eleven old canal boats, which cost about £250 each to build, have been sold at Chester for 12s 6d apiece.

Nearly seven miles of sea-front will be ablaze with coloured lights for Blackpool's autumn illuminations.

Although Nova Scotia's grain harvest has suffered from drought, the apple crop, estimated at one and a half million barrels, has not been affected and the first shipment of 45,000 barrels has already left for London.

Probably the oldest postmaster in Britain is Mr J. E. Hall, of Bridgnorth, Staffordshire, who is 88 and still takes complete charge of his office work.

Stockholm City Council has given a civic reception to the Mayor of Bermondsey as a complimentary return for Bermondsey's entertainment of a party of Swedish visitors during the Coronation celebrations last May.

The Cornwell Scout decoration has been awarded to Rover Scout G. C. Sewell, who has been a cripple for over ten years. He is now 25 and a member of a Bulawayo group. This is the first award of its kind to a Scout in Rhodesia.

The only amateur circus in Britain is organised by monks and performs in the monastery garden at Mount Olivet, near Farnham in Surrey.

PAYING FOR WHEAT Subsidy Again

When wheat rose in price the wheat subsidy was no longer paid, because, under the law, the payment is only due when wheat becomes too cheap to remunerate the British farmer for growing it.

What the Wheat Act does is to guarantee farmers a minimum price of 45s per quarter of 504 lbs. If wheat rises above that level no subsidy is due. If it falls below 45s the subsidy is payable. That fall has now happened, following the harvest, and the subsidy has to be revived.

The money to pay the subsidy is obtained by making a levy on all flour, whether home-milled or imported. This tax is really borne by the consumer of bread, to whom it is passed on.

The claim made for the subsidy is that it sustains the British wheat crop, encouraging the farmer by guaranteeing him against loss.

THINGS SEEN

A lorry left in a country lane, with the door wide open.

A Saxon lady in her grave with a necklace round her neck.

Four boys turning over milk cans, setting them rolling across a London pavement, and running away.

THINGS SAID

Life is hard enough for most folk: don't make it harder. Wayside pulpit

Industrial accidents cost this country £9,000,000 a year.

Keeper of Home Office Museum

The beautiful dazzle of the diamonds in our trade may make us blind to the sordid touches in it.

President of the Drapers' Chamber

If the nation can organise a great defence programme against war it can do so against other great enemies—unemployment, poverty, malnutrition, and disease.

Mr Ernest Bevin

The great slag-heaps, the grimy pit-head buildings, and the apparent lack of design in all surface workings amaze us.

A German mining student, on British coalmines

The shortage of recruits to the nursing profession is so serious that the voluntary hospital system is on the verge of a breakdown.

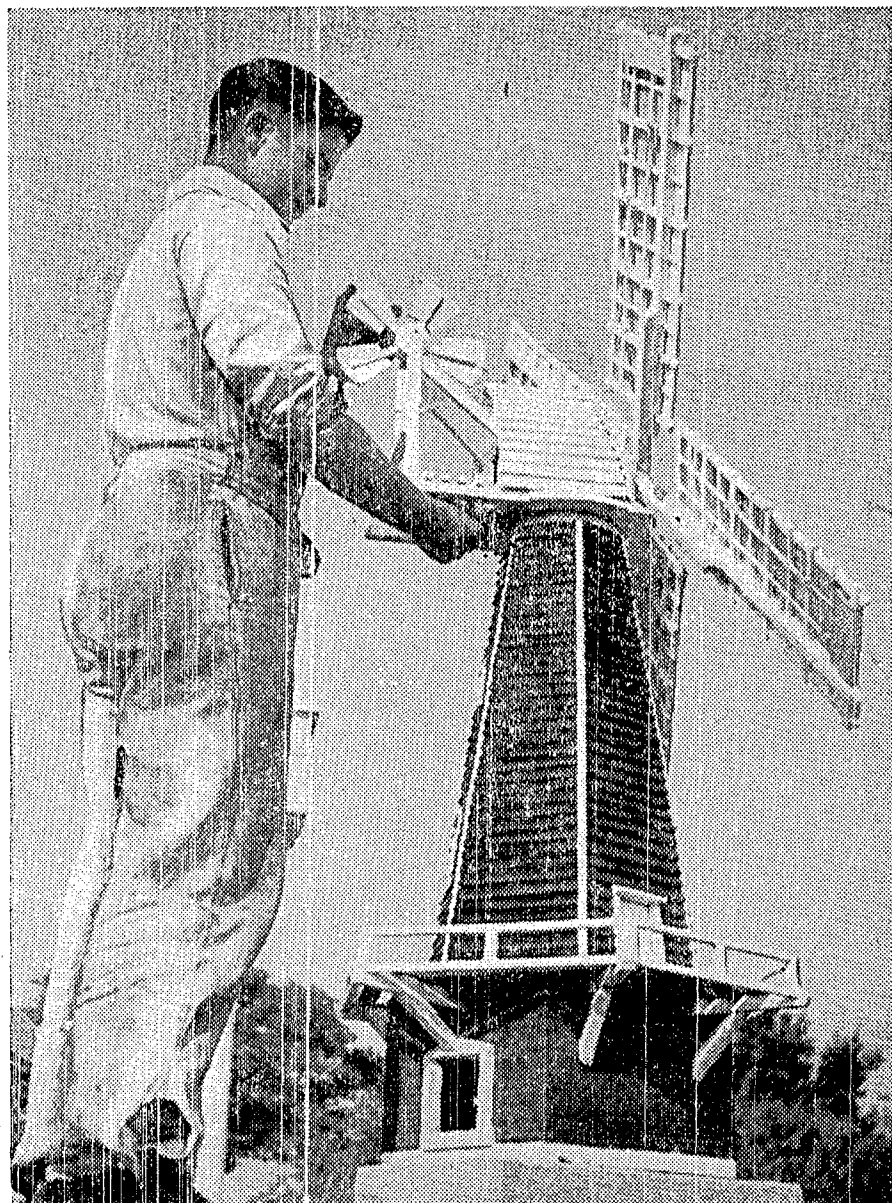
Mr G. Gibson at the T U C

September 18, 1937

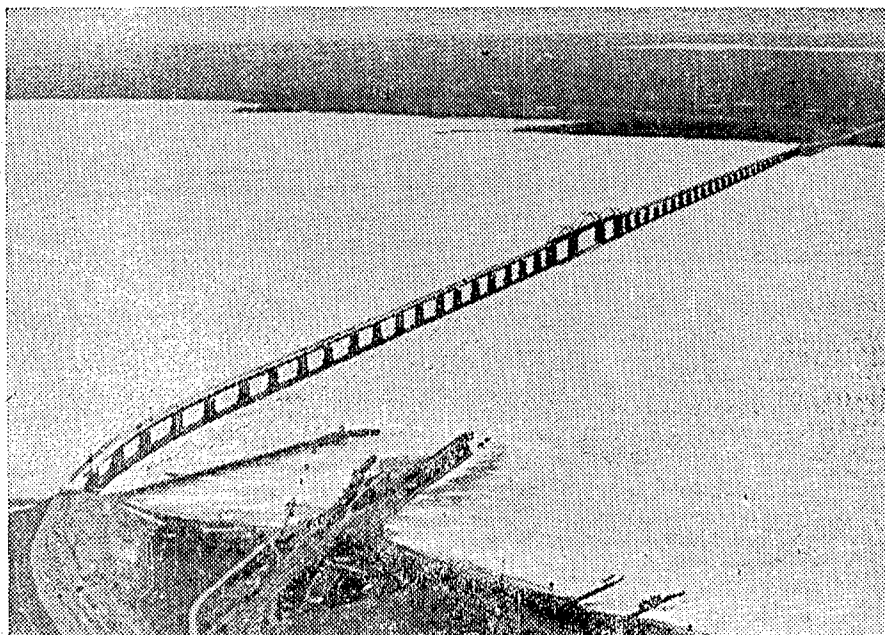
The Children's Newspaper

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Model Windmill • Denmark's New Bridge • Milk is Best



Model Windmill—A model windmill which forms a garage sign at Southwater in Sussex



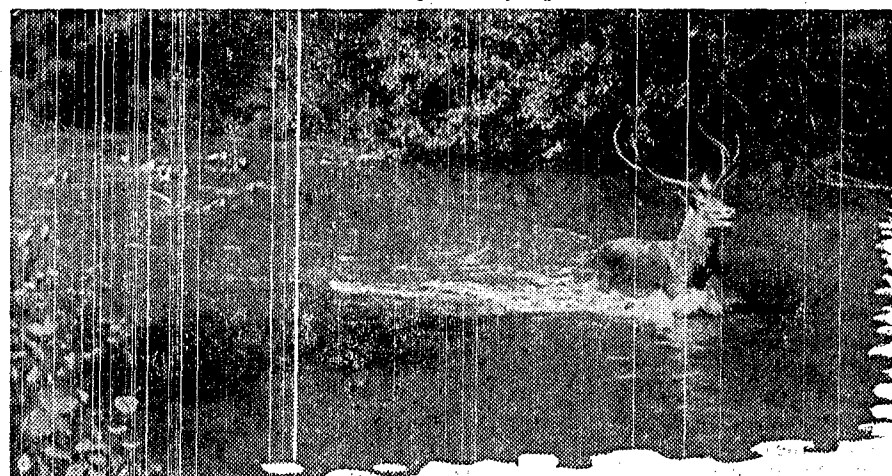
Europe's Longest Bridge—30,000 tons of British steel have gone into the new Storstrom Bridge which the King of Denmark is to open this month. It is over two miles long



Young Sailors—Running before the breeze at Thorpness in Suffolk



A Mighty Crater—A plane flying over the huge meteor crater near Wilmslow in Arizona during a survey flight for a new air route



One of the Sad Spectacles Still Seen in Somerset—The pitiful sight of a hunted stag seeking liberty by taking to the water: a race in Anthony's Weir on the River Exe



Milk is Best—This milkman has an unusual round, supplying refreshing drinks to holiday-makers on the shore at Ramsgate

DR JOHNSON'S CITY

A New Bishop For Lichfield

The enthronement of a bishop is one of the rare spectacles of our cathedrals, and this month Lichfield, famous as the birthplace of the great Dr Johnson, is looking forward to the installation of Bishop Woods, who was Bishop Suffragan of Croydon from 1930. The ceremony will be performed in the presence of several bishops and many hundreds of other people.

Thus prominently into the news comes one of the most tranquil places in the Midlands, Lichfield, where the Ladies of the Vale point heavenward from the heart of England.

Here is a short description of the scene of the enthronement taken from the exhaustive account of Lichfield in Arthur Mee's book of Staffordshire, one of the new autumn volumes in the King's England series.

THE first impression of this fine place is of its extraordinary beauty. It extends 370 feet from the west door to the lady chapel in a fascinating series of arches. As we look at the fine proportions of the nave arcade, the exquisite capitals of the slender pillars, the delicacy of the carved triforium and clerestory rising to the rich vaulting of the roof, we understand Sir Gilbert Scott's words: "I always hold this work to be almost absolute perfection in design and detail."

Designed by Sir Gilbert Scott

The nave pulpit and the choir screen of iron, brass, and copper were designed by Sir Gilbert Scott and are decorated with coloured marbles and enamels. The craftsmanship is very fine, especially the carved fruits of ivory, onyx, and precious stones. The design of the pulpit is Peter preaching on the Day of Pentecost, and on the screen are angels in bronze playing musical instruments.

The choir and aisles are 13th-century work. In the 19th century many layers of whitewash were removed from the walls, the built-up arches were opened out, and the plaster taken away from the stone carvings. The choir vaulting with seven-ribbed shafts is very fine. Three of the bays date from 1200 and one pillar shows the blended influence of the 13th and 14th centuries.

There are six modern figures of saints in the spandrels of the arches where earlier figures once stood; they are Peter, Mary, Philip, James, Christopher, and Mary Magdalene.

Carvings on the Throne

The stalls and the bishop's throne were carved in 1860 by Samuel Evans, George Eliot's uncle, the original of Seth in Adam Bede. The carving is of delicate work enriched by wreaths of natural leaves; there are Bible scenes in the panels, and figures of the Apostles at the ends of the stalls. The work on the throne is specially fine, showing the Madonna and Mary Magdalene with angels above. The pavement is laid in engraved tiles illustrating the life of St Chad, and kings and bishops who have been connected with the cathedral.

Two beautiful parts of the choir were designed by Scott, the reredos and the altar screen of alabaster and marble. The reredos shows the Ascension with exquisite angels holding ivory trumpets. In the side arcades are 12 alabaster figures representing the noble army of martyrs in pairs of different ages, the last two turned to face the lady chapel instead of the choir. In the canopied sedilia are remnants of the vanished loveliness of the great 15th-century screen, which we imagine must have been comparable with the masterpiece of Winchester Cathedral.

FROM MARSH TO MEADOW

Fighting the Floods

WHAT is expected to be one of the biggest land drainage schemes ever undertaken in England is now being planned.

There are still difficulties ahead, but it is hoped that before this year is out the work of draining a wide area of the River Ouse in Norfolk and the counties nearby will be begun.

The scheme is estimated to cost about five million pounds, and if all goes well it should result in adding to the value and safety of 360,000 acres of agricultural land. For ten years some 2500 men will be directly employed, and at least another 1500 will be kept busy quarrying and transporting materials.

Based on plans originally drawn up by Dutch engineers, the scheme, which has been approved by the Government, is mainly concerned with the improvement of the river channel below King's Lynn. The result of this will be to save the farmers of the Norfolk Fen districts from the floods which in recent years have inundated thousands of acres of agricultural land, causing heavy losses and much suffering.

It is also believed that before long work will begin on three other drainage schemes of importance. One is the East

Norfolk rivers scheme which will deal with the Yare, Waveney, and Wensum, at a cost of over £360,000. Another is the Essex rivers scheme, which is mainly concerned with sea defences at the mouths of rivers between the Thames and Harwich; and the third is the Somerset rivers scheme, the sum of £573,000 being set aside for dealing with the rivers Parret, Brue, and smaller streams.

It seems that there is at last hope for some of our constantly flooded areas. Since the Land Drainage Act of 1930 schemes to cost upward of seven million pounds have been approved, one of the biggest of all of them being for the drainage of the lands round the Trent and the Yorkshire Ouse.

Money spent on schemes of this kind can never be wasted. To reclaim marshy ground or to protect productive fields from floods must benefit the community. For years there have been areas where farmers have been utterly discouraged by the floods which have washed away their crops and ruined all their hopes, and it is high time that some of our unemployed were set to work to keep our rivers within limits and to reclaim lands at present useless.

Do Bats Eat Bees?

AT first sight the reply to this question would seem to be that such a thing is impossible; that bats fly by night and bees by day. But, unlike the tropics, we are blessed with a twilight, when creatures of the sunlight meet those most active when the sun has set or is sinking, and bats may, indeed do, meet bees.

A certain wood rises steeply toward a thick boundary hedge dividing it from a high-lying field. At the highest point of the wood is an aged oak of great girth, with a hole in its trunk leading to a hollow interior in which bees have made their home. The lower part of the tree is screened by the hedge, but the upper part, with the bees' doorway, stands high and clear, so that the last rays of the sun fall full upon it.

Here, while the rest of the wood is in shadow, the bees still come with their burdens of pollen and nectar, their portal illuminated like a little lighthouse. In high summer they are still bringing in their loads up to 10 o'clock at night.

Long before that the bats are out in pursuit of prey, dividing the air with the little owls. It is at this time that bats and bees encounter.

Late on a recent warm evening the bees were swooping in by twos and threes with their last gatherings of food when out of the last rays of the sun came a single bee. As it approached the tree a bat flittered out of the shade and chased it. The bee dived like a little fluffy rocket straight into the opening in the trunk; the bat, baulked of its prey, reached the portal just too late, did a turn that would have amazed an airman, and wheeled stiffly away into the darkness.

Bees can but rarely contribute to the diet of bats; it seems unnatural that they should. So, however, does it seem that bees should become victims of toads, yet there was one unscrupulous toad which, waiting outside the place at which bees entered and left their hive, ate half the colony before his felonious habits were discovered.

Not the Words That Milton Wrote

TRANSLATIONS from Latin and Greek authors for long attributed to John Milton and published in editions of his collected works have recently been found to have been the work of others.

This discovery, which in no way impairs the fame of the poet, has been made by Mr John Gawsworth. The explanation is a simple one. Milton wrote in Latin a Defence of the English People in answer to a Defence of Charles Stuart which had been published in Holland in 1649.

In his work Milton quoted classical authors, giving Latin translations of the Greek authors. Now when in 1692 Joseph Washington translated Milton's

work into English he also translated into English the passages which Milton had quoted and translated from the classics.

When preparing the edition of Milton's works in prose and verse which he published in 1851 James Mitford included these translations by James Washington as Milton's own English versions, and other publishers have continued in this error.

It is not a matter of great moment, and scholars no doubt have always preferred Milton's Latin translations of Homer to the English versions which have so long passed as his, for Milton was a master of Latin prose as well as of English poetry and prose.

The Salmon Mystery

WITH all our great salmon rivers, our hatcheries, our records of the coming and going of the fish, and our booking of the weights they attain with the passing of the seasons, we know nothing of what happens to them once they leave our streams for the sea for that great feasting which fattens them against their return to the place in which they were hatched.

So salmon are being marked before they quit the rivers; and any fisherman out at sea who catches one and brings home its story will have a new chapter to add to our knowledge of the life-

history of this mysterious river-born lord of our fishes.

A start has at last been made, only a little one, but an encouragement. The informant is not British, but a true Viking salmon. He was caught the other day at Berwick-on-Tweed, and bore a metal tag saying that he originated at Oslo, Norway, and asking that the identification mark might be returned to the place at which he was liberated.

Now if the Norwegians can catch a British salmon in their waters we shall know without doubt that their fish and ours exchange visits.

LATE TO BED AND LATE TO RISE

The Plague of Wireless

If there is one thing worse for children than reading in bed it is wireless in bed.

The school medical officer of Enfield, as the result of teachers' reports on nearly 9000 children, seniors, juniors, and infants, declares that half the infants and a third of the junior children listen to the wireless in bed. A considerable proportion have wireless sets in their bedrooms.

Only a quarter of the senior children take their nightly dose of wireless in bed, but this is probably because they sit up with their elders to listen to the household loudspeaker. As the lure to children of the programmes is generally the variety programme, which takes place considerably later than the Children's Hour, it may be assumed that the children are awake long after they should be asleep.

The Best Hours For Sleep

Childhood can generally fall to sleep as soon as it closes its eyes, but jazz music or music-hall songs are not a good nightcap for them. They do not get enough sleep, especially in those hours before midnight when sleep is deepest and does most to repair the wear and tear of the day.

The figures of the school reports for reading in bed are less disturbing than these of listening to the wireless. This is an old complaint, and many children, often the more intelligent, will read in bed while there is any light, unless their parents prevent it. It was so even in the Victorian era, when there was a rigid time-table, beginning at 6 o'clock for the infants, and not going much beyond 8 o'clock for any child's bedtime. But the effect of reading in bed is not so much that of keeping a child awake, for it may even encourage sleepiness, but of damaging the eyesight. A large proportion of examples of short-sightedness can be traced to reading in bed at the ages of eight to ten.

Early to bed and early to rise is as good a motto for children as ever it was.

He Who Runs May Read

Picture-writing is coming back. The ancient Egyptians used it, and in the Dark Ages the monks told Bible stories by pictures painted on church walls.

In the old days signs were used where we now use the printed word, the three balls of the pawnbroker, the barber's pole, the chemist's pestle and mortar being ways of telling people where to find the shops they wanted.

In our own day signs and pictures are being used more and more. We have them along all our roads, for the motorist who has not time to read that there is a school ahead glances at a torch painted on a sign and instantly interprets it. He sees a black triangle and knows that it means a hill. He sees a gate and knows it means a level-crossing.

The International Youth Hostel movement is going still farther in this matter. The movement now covers 18 countries, and so that everyone may easily find accommodation a handbook with about 50 small silhouettes and a key in four languages has been issued. From this little book we learn that a hostel with a post-horn is accessible by motor-bus, and one with a Noah's ark on two wavy lines is reached by boat. A toy engine indicates a railway station, and a fork means that meals are provided. A pair of skis indicates that there are winter sports in the district, and a pair of shorts hung on a line means there is a drying-room on the premises. So the pictures go on, speaking plainly to people of all countries.

SCHOOL FILMS

It is good news that there are to be still more educational films.

The Gaumont British Instructional Company is making its programme half as big again in readiness for the big demand for films that is anticipated. The Board of Education, which has approved of educational films, is ready to offer grants to enable schools to buy projectors, and teachers have met at a summer school at which this new teaching method has been discussed.

There are now a thousand schools in Great Britain using projectors. France has about 9400, Germany about 17,000, and the United States about 10,000.

A PIGEON'S NEST

When the boys in one of the dormitories of Weymouth College went up to bed one evening toward the end of last term they were amazed to find a pigeon had laid an egg on the only spare bed in the house.

The pigeon was left undisturbed by the eight boys who slept there, and the next morning another pigeon flew in. Two days later another egg was laid, and at the end of term the pigeons were calmly waiting for the eggs to hatch.

THE DOG CRICKETERS

We told last week of a fox-terrier in Yorkshire which delighted in fielding during a cricket match.

Now news comes from Australia of a team of dog cricketers.

Two New South Wales policemen play cricket with ten Alsatian dogs. The animals are given positions in the field and the constables bowl and bat. The dogs field excellently, rarely missing a catch or failing to stop the ball, a hard rubber one. Three of the dogs are good wicket-keepers.

It remains now for the Yorkshire terrier to get some of his pals, make them into a good team, and challenge the Australian side in a series of Dog Test Matches.

THE POSTMAN'S BADGE

Postmen are to have a new design of metal cap badge. It will have chromium-plated letters and figures which will not require polishing. The new badge will come into use on October 1, at the same time as winter uniforms.

FATHERS AND SONS

As we have come across more than one boy who thinks he knows more than his parents because he had the good fortune to be born after them, we print this saying of Mark Twain:

When I was a boy of 14 my father was so ignorant I could hardly stand to have the old man around. But when I got to be 21 I was astonished at how much the old man had learned in seven years!

A BLOODTHIRSTY INFANT

As generally happens at this time of the year, the papers contain despairing letters from townspeople visiting the country who, tormented by the bites of what they call harvest bugs, appeal for remedies.

The enemies are not bugs; they are not even insects, but are mites, and not even mature mites at that. They are, in fact, the microscopic larvae of a mite called the *trombidium*. The larva hatches from the egg during the middle months of summer, a six-legged, bloodthirsty creature, which, piercing the skin of its victim, draws blood and creates intense irritation.

When its lawless infancy comes to an end it undergoes a chrysalis phase from which it emerges an eight-legged adult mite, incapable of wrongdoing, but content with the juices of the vegetation it frequents. The adult in turn becomes the parent of other harvest pests, and so the cycles follow.

Three Remarkable Sisters

WITHOUT counterpart in history, perhaps, is the strange situation in China today, where three remarkable women hold the keys to power. Astonishing, too, is the fact that they are sisters.

At one time the future of China rested virtually in the hands of the second sister Soong Ching-ling, for as the wife of Sun Yat-sen, the founder of the Chinese Republic, she cooperated closely with her husband. But on the death of Sun Yat-sen she retired into private life, and today it is her younger sister Soong Mei-ling, a gifted Christian woman of thirty years, who is helping to shape China's destiny.

For Soong Mei-ling is now Madame Chiang Kai-shek, wife of the Chinese Premier and Army Chief. Although she

holds the office of Air Minister in the new Government, of far more importance than her minister's rank is the fact that she is both counsellor and mouthpiece to the Dictator himself.

To his wife Chiang Kai-shek turns regularly for guidance as to what the Western world is thinking and doing. He knows no English, and so is entirely dependent on her for an interpretation of current affairs in Europe and America. When he receives foreign diplomats it is his wife who acts as translator.

The third member of this brilliant sisterhood is Madame Kung, the wife of the Finance Minister. She herself has a shrewd understanding of financial affairs and a strength of character which make her a personality of considerable importance in modern China.

BILBAO IRON ORE

The iron ore of Spain is essential to the British iron industry, and we are glad that the shipment has been revived.

A cargo of ore from Bilbao was landed at Cardiff on August 27. This was made under agreement with General Franco. The Spanish civil war caused the temporary loss of supplies, making it necessary to obtain ore from Algeria, Sweden, Brazil, and Newfoundland.

WILFUL WASTE

Last year the Chingford dustmen collected 35,712 milk bottles from household dustbins and the gutters.

They were thrown away by people too idle or careless to return them. They proved to be worth £50 to the Chingford Council, who obtained another £8 for the bread thrown into dustbins and afterwards made into food for pigs. There is something of the pig about people who thus wantonly waste food.

But this is not the whole of the story. What the Chingford wasters did last year the whole country continues to do every year. Altogether more than 13 million milk bottles thrown into the dustbins or the streets were recovered last year, and this could not have been the total of those flung away, for many were broken. The loss to the dairy trade may be realised from the fact that the manufacture of 13 million bottles would occupy a factory for ten weeks, with a cost of hundreds of pounds in wages.

A SANDWICH IS NOT BREAD!

When is bread not bread? was the question a French magistrate had to answer the other day.

Under the law that forbids bakers' shops from opening on certain days a policeman prosecuted the manager of a food shop for selling a roll in which butter and ham had been placed to form a sandwich. Bread was bread, said the policeman, and it was being illegally sold.

Under the French law, however, sandwiches and other prepared dishes may be sold when bakers' shops must be closed, so the magistrate decided it was legal to sell a roll when forming part of a sandwich at times when it was illegal to sell a roll.

THE LITTER LOUT IN HIGH PLACES

Litter louts climb mountains.

At any rate we know they climb one mountain, for the top of Skiddaw is littered with orange peel and is now as unsightly as any mountain top could ever be.

A PEARL OF GREAT PRICE

A pearl as big as a pigeon's egg is said to have been taken into Port Darwin by the skipper of a pearling boat. Weighing 120 grains, the pearl is declared to be the biggest seen in Port Darwin for many years, and so unusual is its size and beauty that experts are unwilling to guess its value.

OUR RAILWAYS

Striking figures have been compiled by the British Railways Press Office.

We are told that over 7000 passenger trains arrive and leave London's seven main line termini every day, an average of five trains a minute. Glasgow's three chief stations deal with 1500 passenger trains a day; Edinburgh with 700. A train crosses the Forth Bridge every seventh minute of the 24 hours, and five trains pass through the Severn tunnel every hour. There are in Britain nearly twice as many passenger and goods trains for every mile of track as there are in France, and more than five times as many as there are in the United States.

RETURNED WITH INTEREST

It is 16 years since a thief broke into a Bradford house and stole a sum of money. The owner of the house was Mr G. E. Smith, who is now living at Shipley.

A few days ago someone pushed an envelope in at his door. Inside was a pound note attached to a slip with the words: Money taken from you in 1921, returned with interest.

A COSTLY FEED

A farmer in the north of Italy recently did a good turn to a neighbour by tethering behind his cart a donkey purchased in the market which they had attended.

As he drove along and the donkey plodded steadily behind he heard a strange noise.

The donkey was munching. He found that the animal had thrust his nose into a basket in the back of the cart containing some raw macaroni. Unfortunately the farmer had also placed in the basket his money, some £30 in banknotes, and the donkey had chewed these up too.

NO MORE ESCAPING GAS

Someone has found a way of preventing gas leaks.

By means of a thermostatic valve control it will be possible to prevent gas from escaping once the flame is out. Very often in the past a sudden gust of wind has blown out the flame of a jet on a kitchen stove or in an oven, but the gas has continued to escape, sometimes with disastrous results. The new device automatically shuts off the gas as the flame goes out.

BUNS, PLEASE!

In a field by a school at Clacton-on-Sea two elephants have been quartered during the summer.

They became very friendly with the girl pupils, who won their hearts by a daily offering of buns. During the holidays the school of course has been closed, the pupils absent, and the elephants deserted.

The other day two windows at the school were found broken. Burglars were suspected, but it required little detective work to trace the damage to two bunless and importunate elephants.

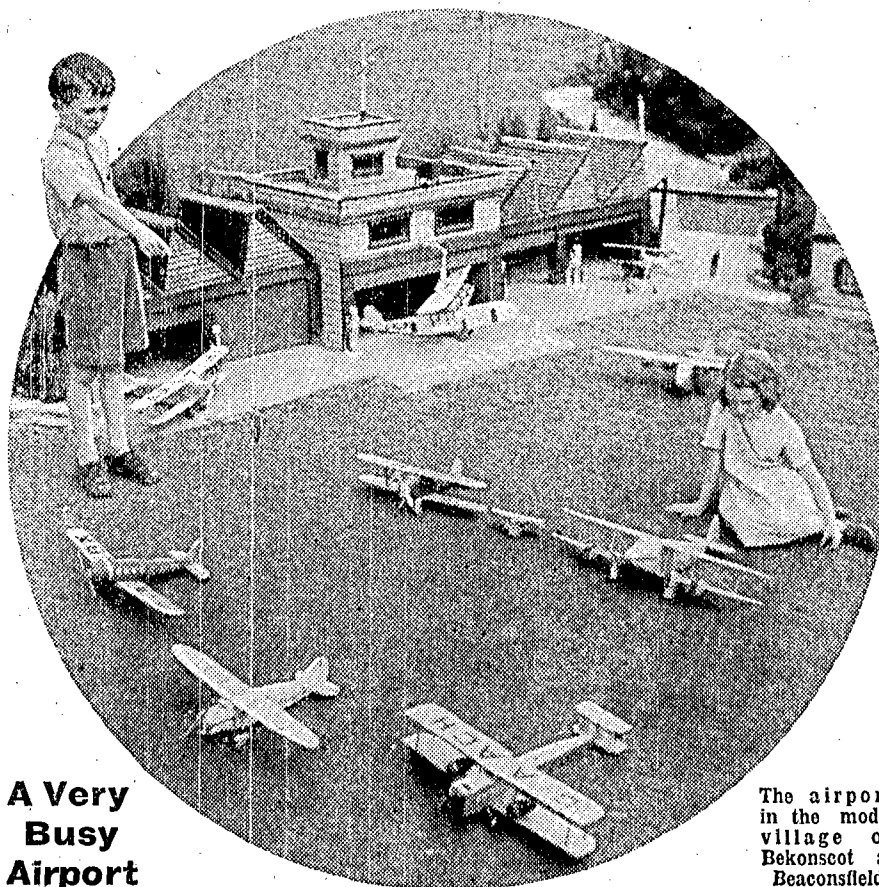
NEW HELP FOR AVIATORS

Something good is being done in the way of helping aviators who are obliged to come down in the sea.

There is a dye called fluorescein which if mixed with water will colour a surface 200 million times bigger than itself a deep yellowish green, and small tubes of this powerful dye can be thrown into the water by a pilot as he nears the surface.

A big patch of deeply-coloured water like this can be seen by others in the air searching for the lost plane from a very long distance, particularly if the observers scan the surface of the sea through a piece of red glass, which makes the dyed water look a dense black.

In one form of the device fresh lots of dye become introduced into the water at intervals, so that the effect may last for a considerable time.



A Very Busy Airport

The airport in the model village of Bekonscot at Beaconsfield

CHILDREN'S NEWSPAPER

SEPTEMBER 18 1937

Safety For Workers

SOME considerable time has elapsed since the C N published one of the first articles written in this country pointing out how many lives could be saved and how much suffering avoided by giving miners protective clothes.

The 1936 report of the Mines Research Board is eloquent of the value of such protection and of the recently rapid extension of its use. In America, long ago, various coal companies reported how casualties of certain kinds had been reduced to insignificance by putting miners into armour. We are reminded how, in the war, it was long before authority could be persuaded to issue steel helmets to soldiers.

Now we have movement. In the last two years 300,000 hard hats have been issued to our miners. Remarkable reductions in head injuries have followed. In three collieries, whose men were nearly all equipped with hard hats, a reduction of 78 per cent in head injuries has been achieved. At a mine in Staffordshire the head injuries have been reduced by 93 per cent between 1933 and 1936.

So with safety gloves, boots, goggles, and shinguards, hardly less important than the helmets. The miners are taking to these equipments as their value becomes apparent.

Why should not similar measures be extended to other dangerous trades? The Home Office should consider the repair and painting of high buildings, bridges, and other constructions. Such work is dangerous because no provision is made to protect the workers who carry out jobs which must arise. If in constructional work architects and engineers provided simple stanchions, brackets, and other aids to fixing scaffoldings, cradles, and so on, it would almost cease to be dangerous.

The ordinary clothing of manual workers also needs attention. Too often the flapping jacket, the loose trouser-end, the needless necktie, the clumsy boot cause disaster. The clothes of a worker should suit not only the climatic but the working conditions. It should never be of such a character as to hinder free movement or to catch in projecting material.

And why should not every man who does a day's hard work be refreshed by a bath at the end of it? Some day it will be a matter of course.



THE EDITOR'S TABLE

John Carpenter House, London

above the hidden waters of the ancient River Fleet, the cradle of the Journalism of the world



Surrey's Good Idea

SURREY has hit on an excellent way of making its country roads fit the pedestrian as well as the motor-car.

The way of the walker is hard on those narrow winding roads where there seems barely room for the passing car and none for him. On some such roads there is no footpath, and when there is it is uncomfortably and even dangerously near the motor-car's dust.

Surrey is meeting both danger and discomfort by putting a hedge on a bank by the side of the road and a footpath on the other side of it. A railing or another hedge may shut the footpath off from the roadside fields.

What Surrey is doing today other counties should do tomorrow. A cycle track on the same principles might also be constructed on one side or other of the road.

Pleasure Boat

ONE of our southern holiday towns displays this notice:

BOATS FOR HIRE

FISHING OR PLEASURE

It is a nice distinction.

Ruined

AN American politician has been illustrating his speech with a quotation from Dickens.

In a discussion with those who declare that the new Wages and Hours Bill will ruin business Senator Black defended the Bill with great vigour, quoting *Hard Times* to drive home his point. This was the quotation:

Surely there never was such fragile china-ware as that of which the millers of Coketown were made. They were ruined when they were required to send labouring children to school; they were ruined when inspectors were appointed to look into their works; they were ruined when such inspectors considered it doubtful whether they were quite justified in chopping people up in their machinery; they were utterly undone when it was hinted that perhaps they need not always make quite so much smoke.

There have always been people who were ruined by something decent that was being done.

A Word To the Editor

IT has always seemed strange to us that the editors of even our most reputable papers allow flagrant errors of ignorance to appear in letters from their readers.

In one of these the other day we read the astounding statement that the famous Chantrey committed suicide.

It seems a profound pity that such a false statement should be allowed to pass into wide circulation.

Enchantment

The forest has spells to enchant me,
The mountain has power to enthral;
Yet the grace of a wayside blossom
Can stir my heart deeper than all.

The Crank In the Taxi

ONE of Lord Dufferin's Cranks tells us a queer little story of his attempt to turn a litter-lout taximan from the error of his ways.

The taximan, waiting at the traffic lights in Trafalgar Square, lit a cigarette and threw his packet into the street. *Litter Lout*, cried Lord Dufferin's Crank, whereupon Mr Taximan got down, picked up the packet, and put it into his pocket.

The Crank, delighted at so pleasant a turn of events, and thinking it kind to make a friendly remark, suggested that most of us forget ourselves at times, whereupon Mr Taximan explained:

There was a cigarette in it.

Tip-Cat

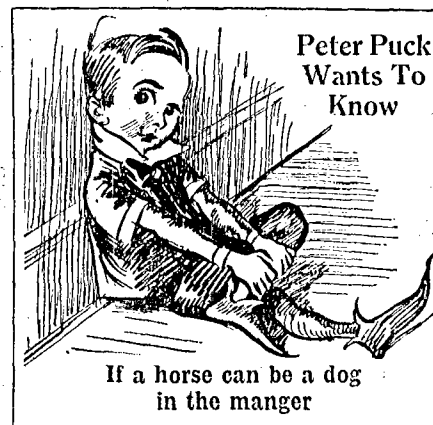


A MAN says he never likes to put off an engagement because of illness. In case people think it is put on.

CHES is being played by telephone. A new move.

SEAMEN have free lives. Skippers like plenty of rope.

A BERKSHIRE family has been bell-ringing for 400 years. Why doesn't somebody answer?



Two chimpanzees dig every day on Ramsgate beach. So do several other young monkeys.

SOME people have distant manners. Too far off even to be noticed.

NEW pound notes sometimes stick together. We should like to join them.

MANY coffee planters have gone bankrupt. Had they good grounds?



THE BROADCASTER

C N Calling the World

IN this country only one out of 700 is blind.

IN August there were 490,000 more people at work than a year ago.

SIXTEEN holidaymakers were fined at Pickering in Yorkshire for leaving litter on Whitby Moors.

JUST AN IDEA

Difficulty and misfortune are like a load of bricks. Some people are crushed by them, others use them for building a wall against despair.

Pax Mundi

IN 1940 occurs the centenary of the postage stamp given to the world by Sir Rowland Hill.

Would it not be a gracious act on the part of all nations to celebrate this contribution to our civilisation by issuing a distinctive Peace stamp, so that the nations could vie with each other in buying it, as their athletes in that year will be vying with each other in the Olympic Games?

There is little doubt that peace is in the hearts of mankind, but how can we draw out the silent will of the nations and make it known to all? Emerson wrote that a symbol always stimulates the intellect. Let us adopt peace symbols which all the world will recognise, using them on the stamps and thus permitting their purchase by people of every nation. Of course, each nation would design its own stamps.

Dante wrote that if given light the people will find their own way. Let us give them this light, this opportunity to buy peace stamps; for, after all, nations are so many states of mind, and we can do much to direct their thoughts. Voltaire said, "Once a nation begins to think it is impossible to stop it." Let us forward the thinking of the nations by enabling their people to express their desire for peace. Give the people something to do about peace. Peace is in the air as well as war.

Peter Helps a Little

By The Pilgrim

WE rang the bell and Peter opened the door. He is four. "Oh, Good Afternoon," we said. "Is your Daddy in?"

"No," said Peter; "but I am."

"So it seems."

"Your mother is in, perhaps?"

"Yes, she's in; but she's getting dressed. I'm taking her out."

"Oh? Will she be long?"

"Oh, just a few hours. You can come in and wait. I can talk to you for a bit, only I haven't much time to spare because I have some gardening to do. You see, Daddy never gets enough money where he works and Mummy is always paying bills, so I grow flowers and sell them."

"That sounds a good idea. Who buys them?"

"Daddy buys them. He gives me two pennies a bunch, and I spend it on ice-cream."

"On ice-cream? How does that help your mother?"

For a moment he looked thoughtful, and then, after a pause, said, "Well, you see, Mummy doesn't have to give me pennies for ice-cream, so she has more money for bills, so Daddy hasn't to work so hard. Would you like to see my new fire-engine?"

The Mills of God

Though the mills of God grind slowly,
yet they grind exceeding small;
Though with patience He stands waiting,
with exactness grinds He all.

Longfellow

COULD A SKYSCRAPER TOPPLE OVER?

Tests in a Wind Tunnel

Is there any risk of America's skyscrapers toppling over in a gale?

This question has been asked many times by the visitor to New York as he casts an anxious eye up the hundred-windowed precipice beside him, or by the typist, 90 storeys up, as she feels the room move during a fierce gust.

The City of New York now has 40 buildings over 500 feet high, two of them, the Chrysler and the Empire State Buildings, exceeding 1000 feet, so that the question of the stability of these enormous structures is of vital importance.

When the tallest of all, the Empire State Building with its 102 storeys and 1248 feet, was constructed its owners, architects, and engineers cooperated in a plan to make this giant a kind of physical laboratory in which a more accurate knowledge of wind pressure could be obtained. The scientists of the Institute of Steel Construction had 30 devices known as pressure outlets placed on the 36th, 55th, and 75th floors. These are small pipes set flush with the outside walls through which the wind blows against a column of liquid that registers the pressure.

What the Collimator Tells the Observer

OTHER gauges which record the strain imposed on them by the wind were placed on the steel columns which, from the 25th floor, support the tower portion of the building. On the summit itself are instruments for measuring the speed and direction of the wind.

But this is not all. Here in this tall building was an opportunity for finding out to what extent a skyscraper will sway in the wind. The engineers called in the astronomical instrument makers, and this is what they did.

Making use of the fire shaft which runs up the centre of the building to the 85th floor, they fixed on the sixth floor level an instrument called a collimator—a telescope mounted on a tripod and focused on a kind of target covered with criss-cross hair-lines set at quarter-inch intervals; the target is fixed to the floor of the 85th storey at the top of the fire shaft, and an observer using the collimator can see to what extent the building is swaying in a gale. The sway has rarely been found to exceed two inches.

This will happen when the wind reaches a velocity of 100 miles an hour and presses against the sides of the building, as revealed by the gauges, at about 40 pounds per square foot, or four times as much as when a 50-mile-an-hour wind is blowing.

The City Built on a Bed of Rock

THESE tests convinced the American Bureau of Standards that under even the fiercest winds blowing from the Atlantic or across the New Jersey plains there was no danger of New York's skyscrapers toppling over. They have been too well built, and have resiliency enough to stand for a

long period of time the constant strain caused by the weather. Yet the experts have issued a warning that it would be dangerous to use cheaper building materials.

It must, of course, be remembered that New York rests on a much more solid base than London. London lies on a bed of clay, while New York has below her rock as firm and solid as is to be found anywhere in the world. Only on such a foundation could one erect this 600,000-ton Empire State Building, with its ten million bricks, its 200,000 cubic feet of limestone, its

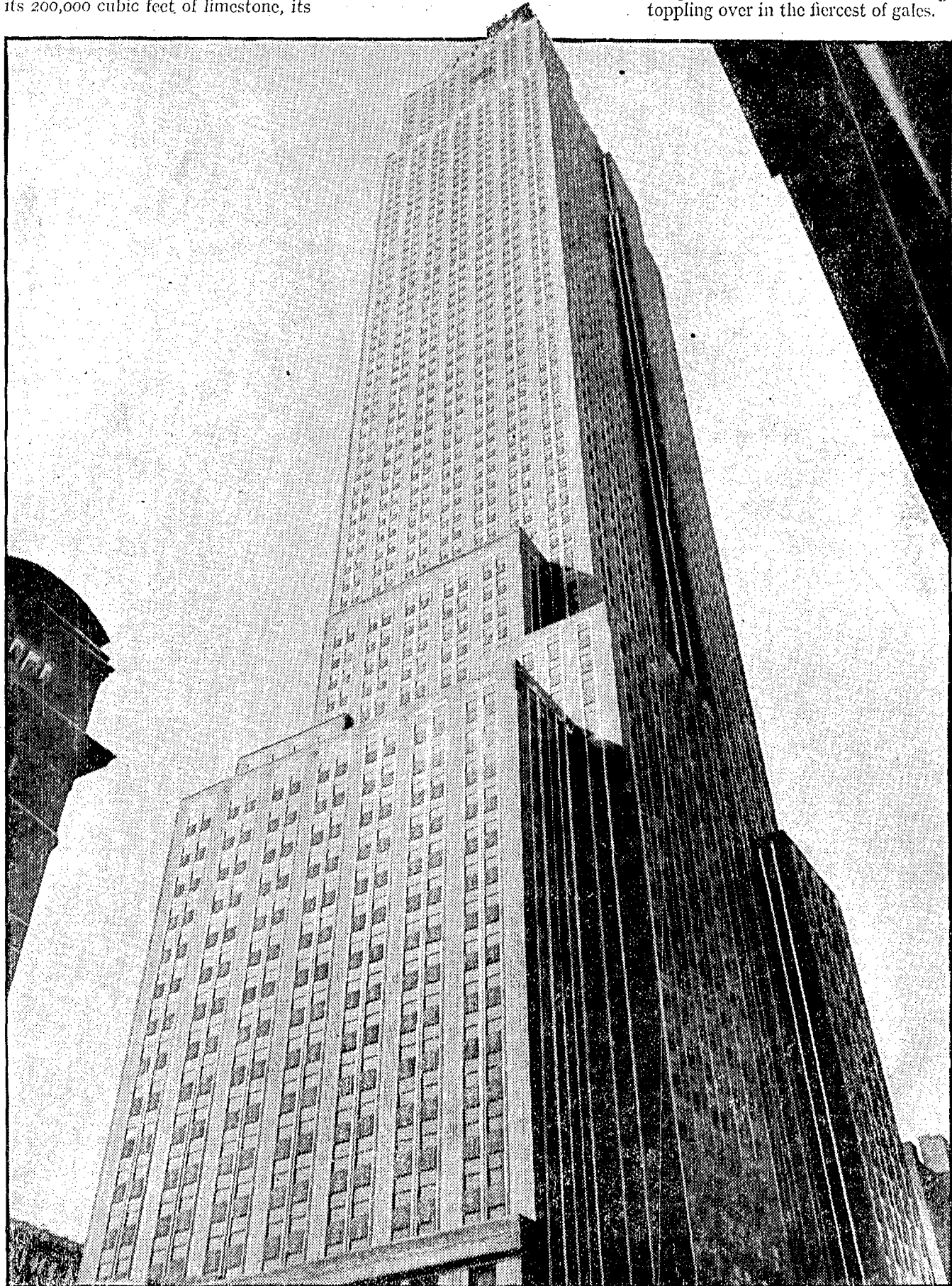
enormous steel frame, and the 300 tons of chrome-nickel steel which frame its 6400 windows and crown it with a mooring mast for airships. This mast, by the way, is the biggest and most effective lightning conductor in the world, protecting the lesser skyscrapers ranged about it.

Eighty of these, forming six entire blocks, have been modelled in miniature and placed in the ten-foot wind tunnel of the Bureau of Standards to test what happens when a gale sweeps over New York. Blocks of wood were cut in the shape of the surrounding buildings, while the model of the

Empire State Building was built of aluminium plates, the whole group being built and assembled on the scale of one foot to 250 feet.

This toy city was placed in the tunnel and the wind turned on while scientists waited to see the effect. They found that the buildings surrounding the Empire State Building shielded it from the full force of the wind, while it in turn shielded them.

Though it was not possible to make the model of a strength proportionate to the existing skyscrapers, the experiment has increased the confidence of the national experts that there is little danger of these colossal buildings toppling over in the fiercest of gales.



Looking up at the great Empire State Building, New York's tallest skyscraper, which is 1248 feet high

THE MYSTERY OF MIGRATION, THE INSISTENT C

The swallows, our friends of summer days, are leaving us, setting out in great companies on their long journey to southern lands. This is our most familiar example of migration, a natural event among birds and other wild creatures which is one of the great mysteries in animal life.

THE coming and going of the swallows from our shores is but one of the problems of bird migration which have puzzled man from time immemorial, and not even today has it been completely or satisfactorily solved.

Some migrations, man's among them, are quite understandable. The history of the human race is in fact largely a record of the movements of peoples from countries too small or poor for their growing populations to others with brighter prospects of life and happiness. Thousands may perish in wars or at the hands of Nature during the great trek, but the Promised Land is gained at last.

In animal life also we witness this kind of migration, one of the most striking being that of the lemmings which move in great multitudes westward when food becomes scarce in their Norwegian homes.

In contrast to the lemmings, the movements of most other creatures is strictly seasonal. The reindeer travel to ice-free valleys in the summer, the caribou move south in winter, returning north in spring, while most animals and birds in the lofty mountainous regions of the world move up or down them according to the season. The swallows, martins, and other birds that breed in the

Himalayas have, indeed, a far easier life than their cousins who breed in northern countries.

Twice a year these visitors of ours make journeys into the unknown of surprising distances, returning practically to a day to the locality in which they lived in the previous year. So exact are the annual dates at which birds will arrive in the spring that farmers in remote parts of the world would use their reappearance as calendars for their seasonal work.

The date of departure is not so uniform as that of arrival, but most of our native-born swallows and martins have left long before the end of October, any we may see after this being mere callers on their way from more northerly countries than ours. For one of the remarkable facts about bird migration is that the farther north a bird nests the farther south it winters.

A boy in the north of Scotland, comparing his bird calendar with a boy in southern England, will find that the swallow has reached its home in Scotland at a later date than the Sussex or Devon bird. The Scottish bird will have travelled farther at both ends of its route, and it will leave the shores of England later in autumn on its return journey to Africa.



Migrating swallows at rest

The explanation is that the traveller from the farthest south has found all the intervening swallow zones already occupied by those who have had shorter distances to fly and have arrived first. There are swallows which will fly even as far north as the Arctic Circle.

But, it may be asked, why should any of the swallows come to us at all? It is not likely to be the food question for these insect eaters, though it accounts for their departure. It is the natural law that all migratory birds nest in the cooler half of the two zones between which they range, and the heat of Africa is unsuitable for the rearing of their young.

As a matter of fact, there are very few of our familiar birds which do not migrate if only for a short distance. The robin, for example, will fly south when winter comes, young birds from our Midland counties coming to take the place of young robins in the South which have dared the Channel crossing. The goldfinch and the lapwing will shift their quarters from one part of this country to another when winter comes, and our native curlew will leave the moor where it breeds to winter at the seaside.

With the approach of cold weather thousands of birds arrive from their breeding grounds in the north to winter in our islands. The fieldfares from Scandinavia are perhaps the most common, but their more solitary cousins the redwings often accompany them. Then there are the snow buntings from Iceland and the Lapland buntings from the land which has given them their name. Wild ducks and geese cross the North Sea to winter among us, while those that breed here will shift their quarters.

Now, the most surprising fact about bird migration is that, with one exception, it is the younger birds who have never made the journey that go first, leaving their parents to follow later. The cuckoo is the exception, as might well be

expected of such unnatural parents. Swallows usually rear two families during their visit to England, sometimes three. Before the summer is over the first brood, without waiting for their younger brothers and sisters or their parents, meet together in vast flocks on the southern coasts of England, and, unguided and unaided, fly to Africa, to the place from which their parents came. How do they find their way?

We can only answer with the one word instinct, which means a memory of route and destination inherited from an ancestry millions of years old. Some birds make use of landmarks, such as coastlines, groups of islands, river valleys, and so on; other birds fly at a height of over 3000 feet, by night, and over the open sea. Have birds some other instinctive factors which guide them to their goals? It has been suggested that when flying over the sea they may be following instinctively a route over what was land in an earlier geological age.

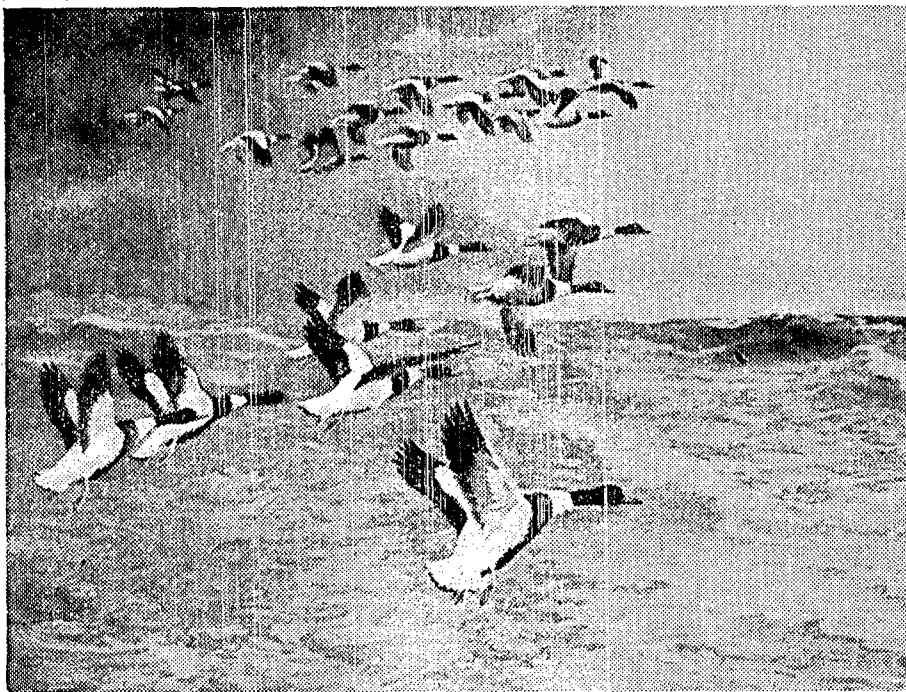
Some Experiments With Ringed Birds

YET the wonder of the homing pigeon suggests something more.

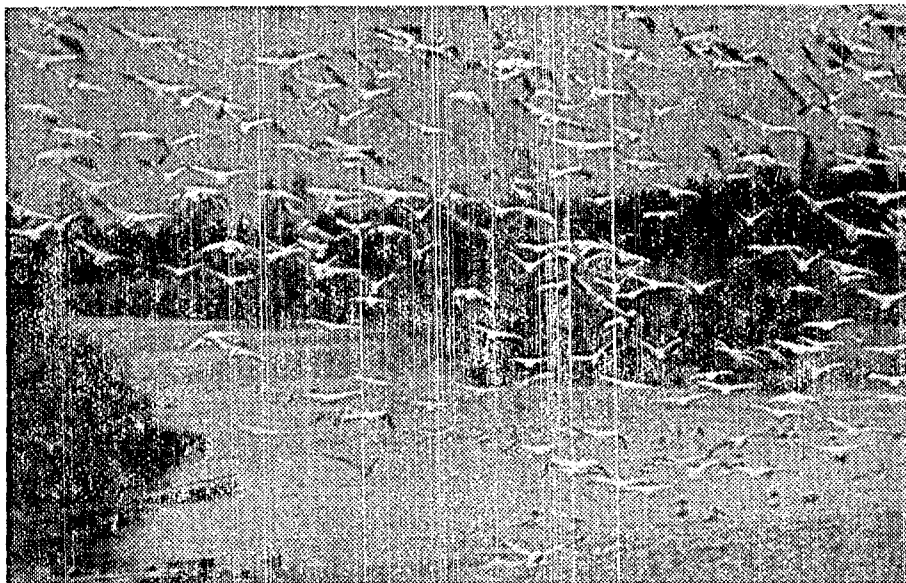
Some years ago an experiment was carried out in America, when nesting terns were taken in hooded cages from Bird Key at the entrance to the Gulf of Florida and set free 800 miles away over the open sea. Most of the terns found their way home. Similar experiments have been made with other migrating birds which have rejoined their mates after having been taken some hundreds of miles off the bird's normal course.

The naturalists of the Haslemere Museum obtained from Heligoland last October 120 starlings which had alighted there during a migration. These they ringed and released. A few of these starlings were later found in Denmark.

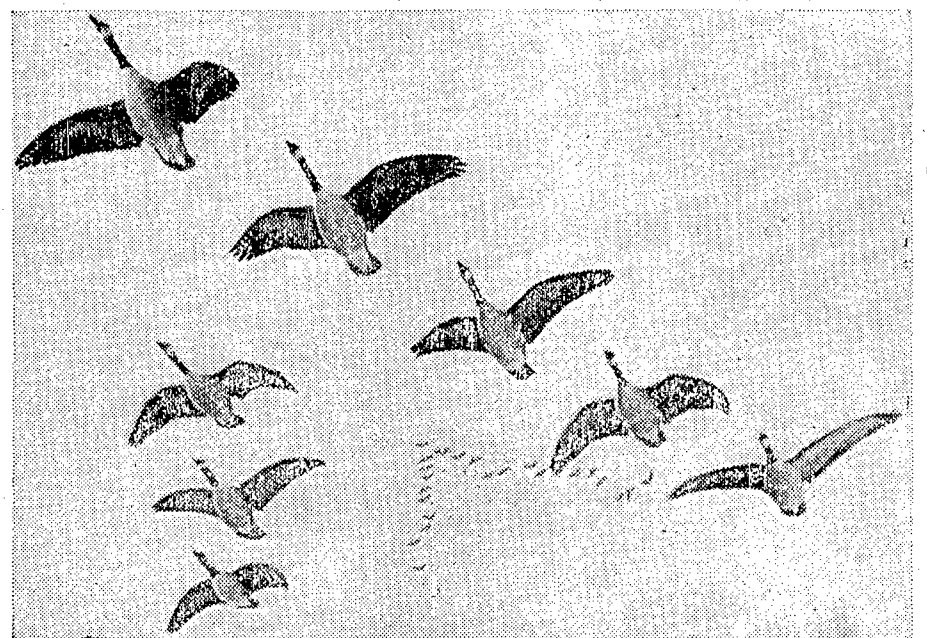
There is no news yet of Haslemere Museum's more ambitious experiment with the storks, but the departure of these birds from England proved that the sea proved no impediment to a migration which normally takes place over land, the storks from Europe reaching Africa by way of Palestine. Storks do not breed until they are three years old, so their arrival back in Europe is not expected until 1939. Will England or their birthplace in East Prussia be the goal on their return journey, "when the stork in the heaven knoweth her appointed time," as Jeremiah wrote in one of the first references to bird migration?



Shelduck in flight above the waters



White pelicans on their annual migration arriving at a sanctuary in Oregon



Wild geese flying in formation to new haunts

ALL THAT COMES WITH THE CHANGING SEASONS



WORLD MAP SHOWING THE MYSTERIOUS PROCESSIONS OF MANY LIVING CREATURES THAT TAKE PLACE EVERY YEAR

The Bible, by the way, points to bird migration in the story of the Children of Israel feeding on quails. These birds had been blown inland when crossing the Mediterranean to become the food of a migrating race!

It is in the New World, which has land reaching almost from Pole to Pole, that most of our knowledge of bird migration has been discovered; and amazing indeed are the facts.

The golden plover and the Arctic tern stand out for the wonderful distances which they fly each year, and it is hard to say which bird performs the greater feat. The Arctic tern is the more striking bird, eclipsing the swallow and the swift in its equipment for flight. In barely 20 weeks of flying it covers a distance that would almost encircle the earth. Having spent about three months rearing its young under the unsetting sun of the Arctic summer, this bird flies down the coasts of the Americas to enjoy the southern summer of the Antarctic. In direct flights it would cover 22,000 miles, but on the way it must hunt for food from the waters, and therefore fly far greater distances.

The tern is a bird of the sea and can rest on it when weary, but the golden plover would perish if it alighted on the waves. The plover's flight over the sea is consequently even more amazing.

The golden plover also nests in the Arctic, and when summer ends some fly to South America, others to winter quarters in the Old World, and a great company to Hawaii in Mid-Pacific. The Hawaii journey involves two non-stop flights of some 2000 miles a year;

but more remarkable still is the route down to South America, when these plovers, after a few days' rest in Nova Scotia, fly over the Atlantic on a non-stop 2400-mile journey to Brazil. Most birds make use of the West Indian Islands, or the Isthmus of Panama, as, indeed, the golden plovers do on their return journey.

Many plovers perish on these hazardous flights over the sea, and it is certain that thousands of birds of all species perish from storms and privations during their long journeys. But go they must when the mysterious call comes to them, and the why and the wherefore of it is an absorbing problem the scientist has still to solve.



The Arctic tern



Wild ducks of the marshes about to set off for their annual flight

On the Edge of the Ice Barrier

One of our contributors who has been for a summer cruise to the edge of the Arctic Ice Barrier sends us these interesting notes on what he saw.

It has been a hot summer in the Polar Sea, and the idea that the Russian scientific men who settled in a hut near the Pole might find their ice-floe melting under them is not so fantastic as it appears.

The effect of the summer has been to withdraw the edge of the frozen Polar Ocean sixty miles nearer to the Pole, on the Spitsbergen side, and the cruising liner in which we steamed to the edge of it was able to get within 500 miles of the North Pole itself. The ship might have gone nearer still, but the captain refrained from venturing his ship farther, not for fear of danger, but because the loose ice-floes would scrape the paint off.

This ice barrier which we had come so far to see was a most unexpected sight at five o'clock on an August morning. We might have expected to see, as in Cross Bay, Spitsbergen, where the glaciers from the mountains run down to the sea, a cliff face of ice 20 or 30 feet high to form an impenetrable barrier. But the ice barrier we saw was nothing like that. It was a mass of loose, floating, flat blocks of ice, the edge where they meet the dark unfrozen waters of the ocean very sharply marked. Only by the eye of faith could we know it as the barrier it was, stretching from the edge where we were afloat 500 miles northward, and then 500 miles or so on the other side.

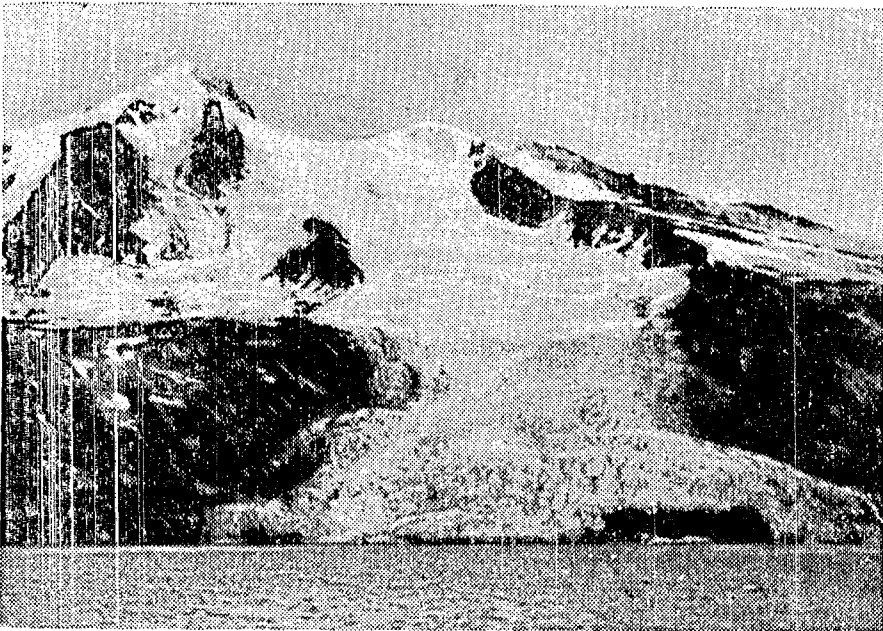
Every mile nearer the Pole it crushes closer together, freezing into greater solidity, the floes becoming bigger, the breaks between them appearing unexpectedly, but more rarely. An appalling area to cross. A tragic ocean in which to be lost.

Where our ship paused it was not cold. The air was a degree below freezing, but hardly felt so, because there was no wind, and the temperature of the water was two degrees higher. Many a London October morning feels colder. But it was a sight not to be forgotten, for this was the barrier which a thousand brave men have broken through, to risk or lose their lives.

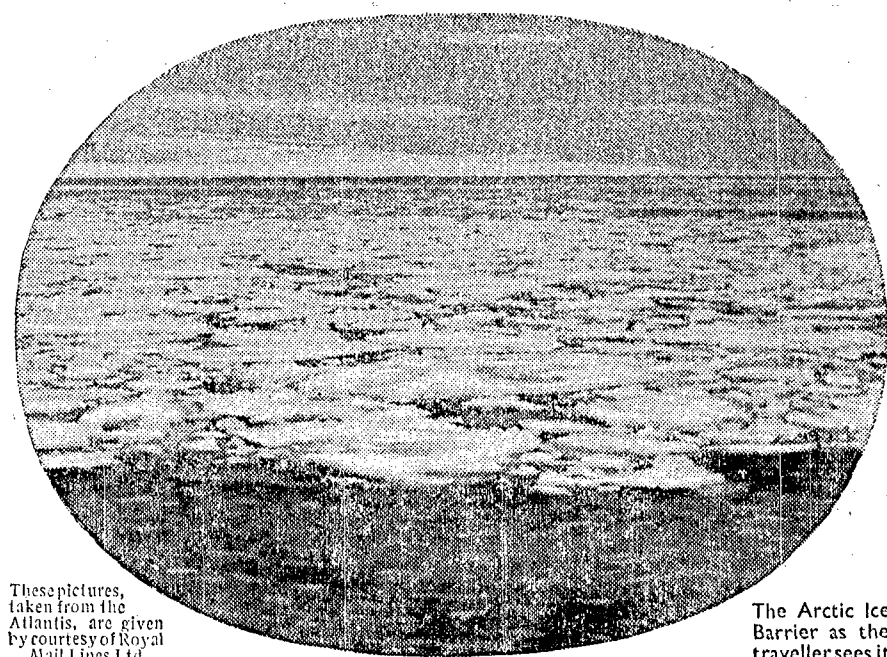
On our way to it we had seen many inspiring sights. There was Jan Mayen Island, the most northerly wireless station in our hemisphere. There four Norwegians stay all the year round, through the days of the midnight sun—which we saw, and gazed open-mouthed at the red ball descending to the horizon's edge, and then bouncing up again from the ocean—and through the long Polar night.

Our ship halted at the island, where it is customary for big cruising vessels to send some gifts ashore for the lonely weather men whose chief occupation is to send out daily reports to Europe and America. We had steered on the western side of the island, to see, if we could, one of the most wonderful sights of the world; an extinct volcano, 8000 feet high, with a glacier filling its crater and pouring down to the sea through a break in the crater rim.

We were lucky, for Jan Mayen Island has only two clear sunny days in the year, and this was one of them; and we had a sight such as is vouchsafed to few. Some human interest was thrown in.



A glacier pouring down to the sea from Jan Mayen Island



The Arctic Ice Barrier as the traveller sees it

These pictures, taken from the Atlantis, are given by courtesy of Royal Mail Lines Ltd

The wireless station is on the eastern side of the island. We were on the west. But the wireless men were not going to miss the gifts of the August Santa Claus, and so two hardy Norsemen manned the rickety old boat they keep on the western side for shore fishing, and rowed out in it two miles to meet us.

One man was baling all the way, and when the boat came alongside it was quite evident that the cases of oranges, the boxes of other comforting viands, and the gifts of the ship's passengers would sink the leaking barque.

The ship's carpenter, with a sheet of tin, wooden plugs, cotton waste, and other material, did his best to make the boat seaworthy and capable of carrying a cargo; and finally the captain had one of the ship's pinnaces lowered to tow it back to shore.

At long last all was made snug. Off the boat went, with its load of provender and its smiling Norwegians, one of them baling to the last. But it got safe to shore, and as our pinnace came back and was hauled up, and our ship steamed on to the frozen North, we could see through glasses our visitors unloading.

Shawneetown Defeats Ole Man Ohio

By moving itself bodily to a hilltop Shawneetown, which was the oldest town in Illinois, is now the newest town in the world.

Early settlers in Illinois found a pleasant place on the banks of the Ohio, and built Shawneetown there. In those days there may have been fewer floods; which is not so unlikely as it seems, because the Ohio valley has lost many of its forests which soaked up the waters.

However that may be, the broad Ohio has become so familiar, not to say rough, in the last 25 years that twice it has buried the town under an ocean of muddy water, and every year Shawneetown has had to keep anxious watch and ward during flood seasons. At last the people lost patience, and its 1500 citizens called in architects and surveyors to plan a new town for them three miles away on the top of a hill. There they are now busy moving, packing up bag, baggage, furniture, and as much of their houses as can be carried.

It is a splendid opportunity, for new Shawneetown can begin right at the beginning, laying out a garden city with all the things it ought to have, and all the things, like slums, that should not be there left out. It is planned like a huge horseshoe, with a wide double avenue through its length, and parks in the curves dotted with trees.

Trees will be transplanted from forests at hand, so that nearly every house will have its tree, and no house with its garden will have a lesser lot than 80 feet wide and 150 feet deep. It will be a town of little country estates standing about the main street 100 feet wide, and side streets never less than 38 feet from kerb to kerb.

A belt of farm-land will surround the new Shawneetown, so that whatever the future may bring the garden city will be preserved. To it the better houses in the old town are being moved, the worse ones are being demolished, and with the money paid for the old town area lots in the new one are being allotted and houses built.

New Shawneetown is to that extent a socialist experiment, and those planning it are determined to make it the brightest place in Illinois.

It is an example which other towns in areas liable to floods might profitably follow.

Speeding Up

When the new winter timetables come into force on September 27 the LMS will have 62 trains making regular start-to-stop average speeds of 60 miles an hour or more. The trains will cover 6145 miles daily at these high speeds.

Six Feet Through the Chalk at Whipsnade

ALTHOUGH its natural home is a burrow in the earth, we have probably all imagined the prairie marmot to be a rather feeble animal, hardly the equal of a rabbit in strength.

It has been left to the Zoo authorities to make the astonishing discovery that these animals, sent for the benefit of their health to Whipsnade, have made burrows of more than six feet through the solid chalk, so that the chalk has had to be reinforced with sheets of iron to keep them within bounds.

It is impossible to estimate the force exerted by these marmots, but we remember that when a stretch of Kent roads was being excavated for sewers the labour was too heavy for the local unemployed, and men more used to the work had to be called in to wield the batteries of tools available for the purpose. Yet the marmots manage it with their paws.

There are immense reserves of power stored up in the frames of living creatures which have to sustain themselves by the exercise of physical force. Among the biggest of the parrot tribe are birds which bite off layers of a Brazil nut in its shell as easily as we nip off a banana. The trigger fish cracks open its oyster with its teeth as easily as it crunches blocks of coral bitten bodily off the reef. An oyster defies the strongest of men's

teeth and fingers, but it is powerless in the grip of a starfish, which, gripping it between its legs, exerts a continuous pressure until the exhausted oyster is compelled to open its shell, whereupon it falls victim to the unwearying assailant.

With its rasping tongue a whelk bores through the shell of the oyster, and we pause in wonder at the thought of a beaver felling a great tree with its jaws. The rat can gnaw its way through cement, and the common mouse bites its way through mortar.

Among the larger animals there is, of course, the terrific bite of the hyena, which cracks the thigh bone of an ox; the terrifying dash of the swordfish, which pierces with its weapon 18 inches of the oak planking of a ship; and the titanic heave of the grampus, which, charging from below, breaks up ice five feet thick when it wishes to rise and take a gulp of Antarctic air.

The Girls Win

Five prizes of £10 each were won by girls in the annual Galsworthy handwriting competition for L.C.C. school-children. There were 210 entries, yet, though there were about as many boys as girls, the girls won 20 of the awards and the boys only two, both in the third class.

SATURN AT HIS NEAREST

Where Moonlets Speed Like Meteors

By the C N Astronomer

The great world of Saturn, now so prominent late in the evening, will be at his nearest to us on Saturday next, September 25, 791 million miles away. He will be in the south-east about nine o'clock, the brightest object in a direct line south of the two left-hand stars of the Great Square of Pegasus. The picture shows him as he now appears, and five of his nine moons in their relative order outward—1 Mimas, 2 Enceladus, 3 Tethys, 4 Dione, 5 Rhea, which is 327,300 miles from him. His four other moons are Titan, Hyperion, Iapetus, and Phoebe.

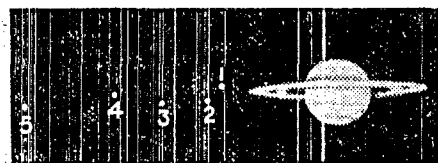
When we reflect that Saturn is a world 763 times the size of our own, we might wonder what man would do with a sphere so huge, were it in a similar condition. A traveller from a Saturnian London to a Saturnian New Zealand under such circumstances would have to cover 110,000 miles, equal to half way to our Moon. While distances would be so long, the day would be only little over ten hours, averaging five hours of daylight and five hours night. On the other hand Saturn's year is 29½ times as long as ours. In a world with some 25,000 such days in it and seasons lasting for seven of our years, living beings might very well be only *annuals* like many of our plants!

Less Dense Than Our Earth

As Saturn is so immense it might be supposed that his gravitational pull would make everything so heavy, even our limbs, that movement would be impossible. But this planet is not composed of materials as massive and heavy as our world; on the whole he is formed of very light materials, so that although his sphere is 763 times the size of ours it is only 95 times heavier. This circumstance, and the fact that anyone on Saturn's visible surface would be about nine times farther from its centre than we are from Earth's centre, so reduces Saturn's effective gravitational pull that things would weigh only about one-sixth more on his visible surface than they do on the Earth's.

Saturn's visible surface is, however, only intangible cloud. Were the planet of the same density throughout it would be light enough to float on water.

Actually a more solid and heavier portion lies some thousands of miles beneath the great atmosphere and cloud-belts of lighter gases. As Saturn rotates



Saturn as he appears now; and five of his moons

these belts travel with him, completing their circuit in from 10 hours 38 minutes to 10 hours 14 minutes, the region of the Great Equatorial Belt travelling fastest. The clouds therefore whirl along at an average rate of between 20,000 and 22,000 miles an hour.

All is exceedingly rapid movement round Saturn, for the nearer of the innumerable moonlets composing his magnificent Rings travel with a speed of 12½ miles a second, and those farthest out about 10 miles a second. Our Moon travels about half a mile a second. We see therefore that this host of particles swirl round Saturn about as fast as meteors travel above the Earth, with the difference that the stream in the Saturnian sky is continuous and, being at a much greater distance above his surface, which is travelling in the same direction, appears to move much less rapidly than it actually does. G. F. M.

THE RAGWORT PEST

Why It Has Spread

Wherever we turn this year, but especially where the soil overlies chalk, the fields and byways abound with the familiar yellow-headed ragwort. The crop last summer was heavy, but this year we are seeing the fruits of seeds that were broadcast then, and the sight is lamentable.

Ragwort has a primitive beauty, but it is poisonous to horses and cattle, whether eaten in pastures as it rises or dried and accidentally included in hay. The law empowers local authorities to order its destruction by owners of lands on which it grows; but that applies to all noxious weeds, and the right to compel such measures of repression are but rarely exercised.

There is no known remedy but destruction of the weed as it appears. Scientists have sought in vain for a means to exterminate it; with thistles and bracken in the wrong places it has developed into one of the prime evils of our agricultural areas.

A Caterpillar Enemy

Opinion generally favours the belief that the increase of ragwort arises from the reduction of labour on the land, and that is probably the main cause; but a good observer in Somerset states that in his county the mischief springs chiefly from a disastrous May frost in 1935 which killed off practically the whole local stock of caterpillars of the Cinnabar moth, which find their food on the foliage and flowers of the plant.

Should this theory be correct, perhaps our entomologists will cultivate this moth, as they cultivate ladybirds and other enemies of insects fatally parasitic on fruit and other crops.

A Tragedy of Long Ago

Has a crime between ten and twenty centuries old come to light at Isurium?

This is the question which antiquarians are asking while work proceeds on the site of this Roman town not far from Boroughbridge in Yorkshire. Excavations are in progress near the remains of the city walls, and already a grim discovery has been made. A skeleton with a dagger in its ribs has been found at the foot of a tower; and the question is whether the man was killed by a fall of masonry, the dagger in his belt afterwards sinking among his bones, or whether murder had been committed by someone who was dust long before the Conquest.

There seems no doubt that Isurium is well worth further investigation. Much work has already been done on the site of this rich and proud Roman city, the home of many of the wealthiest Romans in the land, but many secrets still remain. Unfortunately the charming old village of Aldborough is built over the ruins of this corner of the Roman Empire, and to lay bare the past antiquarians would have to spoil the present.

A Message From Andrée After 40 Years

Fishermen in the Hinlop Strait near Spitsbergen have found on a little island one of the 13 copper globes which Andrée, the Norwegian who set out to find the North Pole by balloon, took with him to drop into the sea with a record of his progress enclosed in them. This is the fifth globe which has been found and was dropped on the day after he set out.

Andrée set out with two friends in 1897 and was never seen alive again. His fate was a mystery until 1930, when his body was found in a boat off Franz Josef Land, together with his diaries and photographs which told of the terrible hardships the three explorers had endured.

STONES

We find them wherever we go. There are houses and buildings of stone. Our streets and pavements are of stone. We find stones in fields and gardens. There are stepping-stones across rivers. Stones abound by the sea, where great boulders are broken up till they become smooth pebbles. On our hills we come upon the remains of ancient stone circles, and on Salisbury Plain is Stonehenge, one of the most remarkable of all our ruins.

Stones meant so much at one time that we speak of the Stone Age, a period before the dawn of history when men knew little or nothing about iron or bronze and fashioned all their tools and weapons from wood or stone.

Mecca's Black Stone

In one sense the Stone Age has never passed away. It is with us still, for stone plays an important part in modern life. From our quarries come stones for the erection of our public buildings. The grindstone sharpens our knives.

It is a black stone which draws hundreds of thousands of devout Moslems to Mecca every year. Known as the Hajar al-Aswad, it is possibly the most famous single stone in the world, unless we include some of the diamonds which have made history. An irregular black stone about seven inches across, it is to this stone that pilgrims have come from the ends of the earth, and tradition says it was once white as milk, and that the sins of those who have kissed it have changed its colour. Another famous stone is the Rosetta Stone in the British Museum, of immense value to scholars because of its inscriptions in different languages.

Proverbs

We realise how much stones have counted for all down the years when we remember that they have a great place in our speech. We say stone deaf, cold as a stone, stone still. We speak of killing two birds with one stone, of people in glass-houses who should not throw stones, of a rolling stone which gathers no moss. All through the Dark Ages the alchemists searched for what they called the Philosopher's Stone; and the story of St Bernard's stone broth is older still.

It is the story of a beggar who asked for food at a lordly house. The servants turned him away, but he begged them to let him use their fire to make a little stone broth. The servants were curious to know how stone broth was made, so they allowed him to borrow a pan of water and put it on their fire. The beggar found a stone, washed it, and put it in the pan. Then he said that a little pepper and salt would improve the broth, and added that any vegetables they might have would make it more palatable. Presently he persuaded them to give him a little meat, and when he had taken the stone out he had as good a basin of broth as anyone could wish.

In the Bible

Jacob had a stone for his pillow the night he dreamed of a ladder from earth to heaven. It was with a stone from the brook that David killed Goliath. The tomb in which Jesus lay was sealed with a great stone, the stone the angel rolled away on the first Easter morning. With stones the people put the first martyr to death, and in the Book of Revelation is the curious promise, To him that overcometh will I give a white stone, and in the stone a new name written.

NEW ZEALAND'S NEW FORESTS

Millions of Pines Planted TEMPERING THE COLD WINDS OF THE PLAINS

In New Zealand, where so many things are new, there is a new forest of pines.

Millions of pine trees have been planted during the past twenty years on the great plain stretching between the Hot Lakes district of Rotorua and the great Lake Taupo, which occupies the centre of the North Island. More than a quarter of a million acres of this land have been planted with quick-growing pine trees.

Here is the new forest which New Zealanders hope will supply much of the timber needed by carpenters and manufacturers when the remnants of the native bush have been cut out.

These great areas of pine plantations are already having a beneficial effect on the climate. Where formerly there was a vast prairie of short scrub and tussock-grass, with here and there a few weather-beaten native trees, there is now a solid wall of trees to shelter man and beast. The new forest forms a great shelter belt protecting the farmlands that lie beyond it.

No Bird Life

The winter climate is not nearly as severe as it used to be, for the pines have grown up to a height of 50 feet in an incredibly short time. Imported trees grow very fast in New Zealand, where winters are not so severe as they are in Northern Europe.

A motor ride through these new forests is one of the sights of New Zealand today. Mile after mile the traveller along the roads is shut in between walls of pine of the same height and the same shape, and the same unvarying shade of green. The solitude is made more intense by the absence of bird life. Only in valleys, where some of the native plants have been left, does one hear the song of birds.

Some of the new forest of New Zealand has been planted by the Government, but much of it is owned by forestry companies, which hope to market their timber in a few years' time. Probably when that time comes much of it will be used as wood pulp for paper-making.

An Old Delusion

Readers of the C N have always been assured that the ostrich does not bury its head in the sand. Yet, as an ostrich farmer in Natal has written home to one of the grown-up papers to point out, the accusation is constantly made, and the metaphor applied to people who act with folly or ignorance. The latest to do so, he says, is an eminent professor of biology who has been broadcasting the old libel, convinced of its truth.

The error arises from the habit, not of the adult birds, which never practise it, but of the young birds which, unable to escape from a threatened danger by running, squat down and stretch out their long necks on the sand, so that they look like little boulders lying on the veldt. But they do not bury their heads; on the contrary, they keep the wariest outlook with their keen, far-sighted eyes, and at last spring up and flee should peril approach too near.

A Call By the Great Skua

After an absence of 15 years the great skua has visited the bird reserve at Blakeney Point in Norfolk. This voracious seabird, two feet long, breeds on the north coast of Scotland and on the Orkneys and Shetlands, and it is rare indeed to find it so far south in our country in August.

HOW ENGLAND WAS MADE FREE

A Strange Romance of History

Under the scheme of new advantages which the Army now offers to soldiers, men who had served and obtained their discharge are now returning to the colours, while many young men are joining up for the first time. Here such service is voluntary; practically throughout the rest of Europe it is compulsory.

Our political constitution, which is the envy of every oppressed and dictator-ridden land, really evolved from this matter of military service. Abroad every man of service age is conscribed; we join the Army of our own free will or remain civilians. In the old days service here was theoretically compulsory and universal.

For nearly four centuries after the Conquest our kings had great possessions in Europe, and it was the law of the land that all subjects should fight in their defence. The land was the king's; all held their estates under him, paying rent in the form of military service. So many horses and men, with sufficiency of arms and food for a given period each year when necessary, formed the return of all the landed proprietors, each according to the extent of his holding.

Conditional Grants

Gradually a change was introduced, enabling men to pay cash in lieu of personal service, the money so derived serving to enable the king to hire professional soldiers, enlisted where he chose. To help him Parliament had from time to time to vote him grants of money, or aids, as they were called. Before making such grants Parliament stipulated that grievances should be remedied and new liberties accorded.

So the old military conditions first won national liberties, and, when towns and cities were called on to pay their quota to the king's military needs, municipal rights were obtained in exchange which completely obliterated the conditions of bondage under which they had laboured.

It was in these conditions that the principle of voluntary service was born; that a man could pay or serve, and that, in return for payment made to the ruler, new rights for men and women were gained, and the foundations laid of that great monument of liberty and unquestioned privilege which made us the freest nation the world has ever known.

FRANCE AND HER RAILWAYS

An Important Move

After much debate and dissension, the Popular Government of France, under M. Chautemps, has settled the railway question by decreeing the formation of a National Railway Company controlled by the State. Thus another great country nationalises its railways.

The decree merges in the new National Company all the French railway concerns, and the French Government is to hold 51 out of each 100 shares, thus taking control.

It is of special interest that this decree was signed by President Lebrun on the eve of the expiry of the dictatorial emergency powers granted to the Government in the late financial crisis. The powers lapsed at midnight on August 31.

It is hoped that the State company, by coordinating and economising services, will provide good service while wiping out the present serious losses. The amalgamated business will be run by existing railway managers.

HUNDREDS OF MILES IN ONE SPOT

A Car That Shows Drivers Their Faults

HIGH above the roar of London traffic, on the eighth floor of Aldwych House, in a room no larger than an ordinary bedroom, stands a car that will take you hundreds of miles standing still. It is a shabby old rattle-trap with its nose pressed against what seems to be a cinema screen.

You step into the car, the room is made dark, and as you start your engine a country scene appears on the screen. There is the splutter and roar of a 1912 model. You release your brake, let in your clutch, and you're off, speeding down a country road—apparently. Actually, the scenery is rushing past you; the car remains fixed. This is just the opposite of that queer impression one often has in a train which is just leaving a station, when one feels sure the train is standing still and the scenery has begun to move.

Vigorously jolted in this noisy old car, you nevertheless put your foot on the accelerator. The scenery moves faster. There is a turning to the left; quickly you decide to take it; but you are going too fast to do so properly, you run over the grass verge but regain the road safely. You take any turning you please, direct your own course, under the impression that you have only to go on and on till you get to Land's End.

A Toy Landscape

How is this illusion created in a small room high up over London? You stop your engine, and climb down to find out.

Looking behind the screen, you discover that the landscape thrown on it is neither a film nor a photograph, but the picture of a *real toy landscape*, magnified.

This landscape, complete with roads, hedges, fences, trees, lakes, and green grass, is set up on a piece of glass about the size of a drawing-board. Proper lighting throws a picture of it, colours and all, on to the screen. The motor that bumps you about in the car so realistically causes this miniature bit of countryside to glide in any horizontal direction about an object on it representing the car. This object is always on that spot of the toy landscape in which the driver of the car believes himself to be in the pictured scene on the screen.

This corner of the Land of Lilliput could be thoroughly explored in ten minutes, but an assistant behind the scenes can add or subtract length of hedge, blocking off familiar roads, opening new ones; plant new forests, discover ponds. He makes these alterations on parts of the model which are out of the motorist's range of vision, so that when the motorist drives into this section again the scene is strange and unfamiliar to him.

"Very ingenious, but what is the use of it?" our readers will say.

The inventors, Mr G. H. Miles and Mr D. F. Vincent, believe that it can be put to use in many ways in instructing and examining drivers, because it reproduces road conditions in a laboratory where accurate measurements can be made and where no real risk is involved.

Tracing the Car's Route

Stretched beneath the mobile miniature landscape is a large piece of paper. As the scene moves about in its strange patterns the exact route of the car is traced on this paper by a pen making a certain number of dots every second. The path of these dots shows if the driver has taken his corners properly, and the frequency of the dots shows his speed. Test drives are timed with a stop-watch.

The most important experiment made so far by the aid of this apparatus is Dr H. M. Vernon's test of the belief held by many drivers that "Just one little drink never does me any harm." Driving charts were made for 20 people at fixed intervals before and after drinks of whisky and beer taken on three consecutive days. These charts were then studied to see how alcohol had affected driving ability.

After making due allowances for individual differences, these experiments showed that *even a moderate quantity of alcohol affects the time sense*, making a driver go faster without realising it. It also causes him to drive more erratically and to make more errors in judgment. Some of the people who took part in this experiment felt that they drove better under the influence of a stimulant. They were surprised by the charts, which proved the contrary conclusively.

Petuarria Comes to Light

RECENT excavations at Brough, by the Humber, have established that a Roman village on its site was the Petuarria referred to by Ptolemy of Alexandria in his famous Geography.

At the Yorkshire side of the river, the village stood where the early road from Lincoln to Malton and York crossed the estuary, and it seems certain that the place began as a collection of native huts. By the second century it had been taken over by the Romans, who rebuilt it, afterwards adding military defences, a wall nine feet thick, and rectangular towers about 25 feet wide and 10 feet deep.

One of the towers has been laid bare during recent weeks, but the most important discovery is an inscribed stone a little over two feet high and

originally about four feet long. The inscription commemorates the gift to Petuarria of a theatre by Marcus Ulpius Ianuarius, who was a kind of sheriff in the town about 160 A.D. What he did was in the honour of the spirits of the deified emperors.

This stone is important because it proves that the name Petuarria given by Ptolemy in the second century was correct, and that even at that time Britain was divided into self-governing cantons in which the old tribal capital or newly-built Roman town became the seat of government. Hitherto no tribal magistrate had been known, but this stone suggests that even Petuarria, small as it was, had an official of this rank.

The inscription is to find a home in the Mortimer Museum in Hull.

Honest John Gets His Reward

IT is good news that Honest John has at last come into his reward.

We told the story of his good deed six months ago. He is John Hardie, and he was then tramping round in search of work. He had not a penny in the world, but he found £9 in banknotes at Coatbridge, and promptly took them to the police station.

After that he vanished; but people up and down the land were so impressed by John's honesty that money was sent to Coatbridge in the hope that it could be handed over to him.

As for John, he knew nothing about the hue and cry after him, and had no idea that he was wanted by the police for being honest. He has had a hard time tramping miles in the south of England, doing any odd jobs which came his way.

The other day he walked into the Coatbridge police station to ask if the money had been claimed. He was astonished to discover that although it had there was £9 10s waiting for him, the gift of people who had admired him for his integrity.

EXCOMMUNICATED

A Once-Dreaded Power of the Church

The excommunication by the Pope of Count Vittoria Ferraris di Celle for the retention of lands which were formerly Papal property sounds like an echo of our own faraway history, though as a fact there must be thousands of people still living who remember the passing of the same kind of sentence by the Church of England against one of its own bishops.

The right to excommunicate has never lapsed in either the Roman Catholic or the Anglican Church, but the consequences of the punishment are now less dire than they were when the Pope was a power above all earthly monarchies.

England's Evil Hour

When, following his interdict or general sentence against the country, the Pope excommunicated our King John the results were terrible. No one could be married and no child christened, and the dead lay unburied for lack of authority to give them Christian interment. The king was cut off from all communication with such as obeyed the papal decree. Bishops fled the land: one was crushed to death under a cope of lead for attempting to follow suit; and when a man was accused before the king of murdering a priest John let him go, saying, "He has killed one of my enemies."

But the effect of the sentence was to make the king no longer recognised as a Christian, and therefore no longer a king, and, finding himself in consequence not only friendless at home but at war with Scotland, Ireland, Wales, France, and Rome, he surrendered his crown to the Pope, and received it back as a tributary vassal, content to swear fealty and do liege homage to the Pope in return for the right to resume the dignities to which he was heir.

Excommunication, old as Bible times, did not pass with the Reformation.

Denounced From the Pulpit

Anglican clergy exercised the right to pronounce the dread sentence, and in the time of Charles the First a zealous Stuart-loving parson excommunicated three parishioners at Luccombe in Somerset, where Walter Pugsley, Moses Pugsley, and John Anton were denounced from all the pulpits of the diocese, and all the people bidden to "eschew and avoid the society of the said persons," and were forbidden to "eat, drink, buy, sell, or in any other way communicate with them, they having been cut off from Christian society." Moreover, the sheriff had the right, under this sentence, to arrest and imprison the offenders until they atoned for the offence which they were accused of committing.

Late last century, the Archbishop of Capetown excommunicated Bishop Colenso of Natal. The sentence was confirmed by the leading dignitaries of the Anglican Church and by the Churches of Scotland, Canada, and America, but was reversed, on appeal, by the Privy Council, on the ground that the Crown had not the power to create in Capetown a Church status empowering one bishop to exercise such jurisdiction over another as entitled him to pass sentence of excommunication.

A Crown For King Farouk

The people of Egypt are subscribing to buy a crown for King Farouk. It will be over 1900 years since a crown adorned the head of a ruler in that ancient land, the ruler being the famous Cleopatra, who perished from the bite of an asp in 30 B.C., and thus brought to an end the famous dynasty of the Ptolemies.

After Cleopatra's death Egypt became the private property of the Roman Emperor, and in 641 it fell under the sway of the Mohammedans.

A TRIBUTE TO BRITAIN

Our Work in Palestine

The searching cross-examination of Mr Ormsby Gore before the Mandates Commission in Geneva has had a triumphant issue for us.

The report of the Commission states that "The concern with which the Mandatory Power has for nearly twenty years sought to appease the antagonistic feelings prevailing in Palestine must awaken in any man of goodwill a degree of admiration all the higher in that it was exercised in a world in which brutal violence often stills the voice of humanity. Let the Jews ask themselves whether there is any other nation by which they have been so little persecuted and to which for generations past they owe so many benefits. Let the Arabs remember the origins of their national emancipation. Without British efforts certainly there would have been no Jewish National Home; but also there would have been, on the threshold of the twentieth century, no independent Arab State."

This is a great tribute to British principles and British practice, which, let us remind ourselves, are the principles and practice of the League of Nations.

PENNY POST

A New Rowland Hill Wanted

Our good Postmaster-General, in declaring the revival of the Penny Post out of the question, appears to be quite unaware that he is repeating the arguments which, before the year 1839, were used in opposition to the establishment of penny post by the Act of Parliament of that year.

Rowland Hill published his famous pamphlet, advocating a uniform postage rate of a *halfpenny per half ounce*, prepaid by an adhesive stamp, in 1837. There was fierce opposition; the Government would have none of it, declaring, as is now declared, that heavy loss would ensue. But Rowland Hill triumphed, and the G.P.O. became, through him, a great institution.

It should be observed that the P.M.G. confuses the issue. We are not asking for postcards to be priced at a halfpenny, or for a two-ounce letter to be carried for a penny. *We merely ask that a letter or card, not exceeding one ounce in weight, be carried for a penny.* A two-ounce letter would still cost 1½d.

Thus the figures of the P.M.G. are irrelevant. Further, the great rise in postal communication would wholly or nearly maintain the revenue at once; certainly it would do so in a few years.

Why does not some bright young M.P. aim at becoming a second Rowland Hill?

25 YEARS AGO

From the O.N. of September 1912

The Wettest Place on Earth. India is a place of many wonders, and its rainfall, in certain parts, is among its marvels. The returns just published for a village called Cherra Punji, situated in the Khasi Hills, Assam, must make Western people almost gasp.

Taking one year with another, the rainfall of the British Isles is such that, if all the water which falls in the course of 12 months could be collected, it would cover the land to a depth of 24 inches. But in six months last year 507 inches of rain fell on Cherra Punji!

An inch of rain gives about 101 tons of water to an acre of land; or 64,640 tons to the square mile. Therefore in six months Cherra Punji had over 32 million tons of rain to the square mile, as against the 1,551,360 tons to the square mile which Great Britain receives on the average throughout the year.

ROMANCE AND THE POTATO

Back To Wild Nature For a New One

We are apt to envy people living in the tropical parts of the Empire when we are told that they have but to scratch the soil to get a food crop.

But there is food and food. Nothing in the tropics equals the potato in nutriment, yet the ordinary potato which thrives in temperate climates cannot be grown there. So the Colonial Development Advisory Committee is helping to finance an expedition to Peru on a very romantic quest.

They will not seek potatoes such as those first brought back to Europe by the Spanish conquerors four centuries ago. Potatoes were already in cultivation by the Incas when the Spaniards landed, and all our stocks, divided now into well over 500 varieties, descend from those originally obtained.

These, as we see, will not grow successfully in hot climates, so what the expedition hopes to do is to find the wild stock from which the original cultivated potatoes were derived, the ancestral potato and its allies—for it is a family of many branches.

When these are found it is hoped that one or two strains can be crossed, and a new hybrid evolved which can tolerate tropical conditions. Given the material the botanist will doubtless be successful. He has given us new wheats that grow where old wheats would have perished, and he is unlikely to fail when he gets the necessary varieties of potatoes to produce one in conditions favourable to luxuriance in other growths.

SCHOOL BROADCASTS

School broadcasting begins again next week, and we shall hear many of our old favourites as well as new speakers.

On Tuesday C. C. Gaddum is talking about Spiders, and on Wednesday Rhoda Power tells A Story of the Flood, which children in Ur were told thousands of years ago. On Thursday morning we shall hear stories of adventures from the people to whom they actually happened.

England and Wales—National

MONDAY, 2.5 Garden Practice and Science: by B. A. Keen and C. F. Lawrance. 2.30 Music, First Year—Major (Doh) Mode, The Crochet: by Thomas Armstrong.

TUESDAY, 11.25 History in the Making—Introductory Talk: by K. C. Boswell. 2.5 Spiders: by C. C. Gaddum. 2.30 Book talk by S. P. B. Mais. 3.0 Handel: by Thomas Armstrong.

WEDNESDAY, 2.5 A Story of the Flood: by Rhoda Power. 2.30 Inventions and Discoveries: by H. Munro Fox. 3.0 Orchestral Concert: arranged by Herbert Wiseman.

THURSDAY, 11.25 Nature's Boundaries—Thirst in the Desert, by H. St John Philby; Peril in Atlantic Storms, by Capt David Stone; and Winter in the Siberian Taiga, by H. P. Smolka. 2.5 Our Village: by Edith E. Macqueen. 2.30 The Face of Britain: by H. Ross Williamson.

FRIDAY, 2.5 In Tropic Seas (South Atlantic): by A. H. Laurie. 2.30 Feature Programme: We Listen. 2.55 Story from Beowulf: by Jean Sutcliffe. 3.20 Music Interlude: by Scott Goddard. 3.35 Talks for Sixth Forms (Introductory Talk): by E. M. Forster.

Scottish Regional

MONDAY, 2.30 Speech Training—Breathing and Phrasing: by Anne H. McAllister.

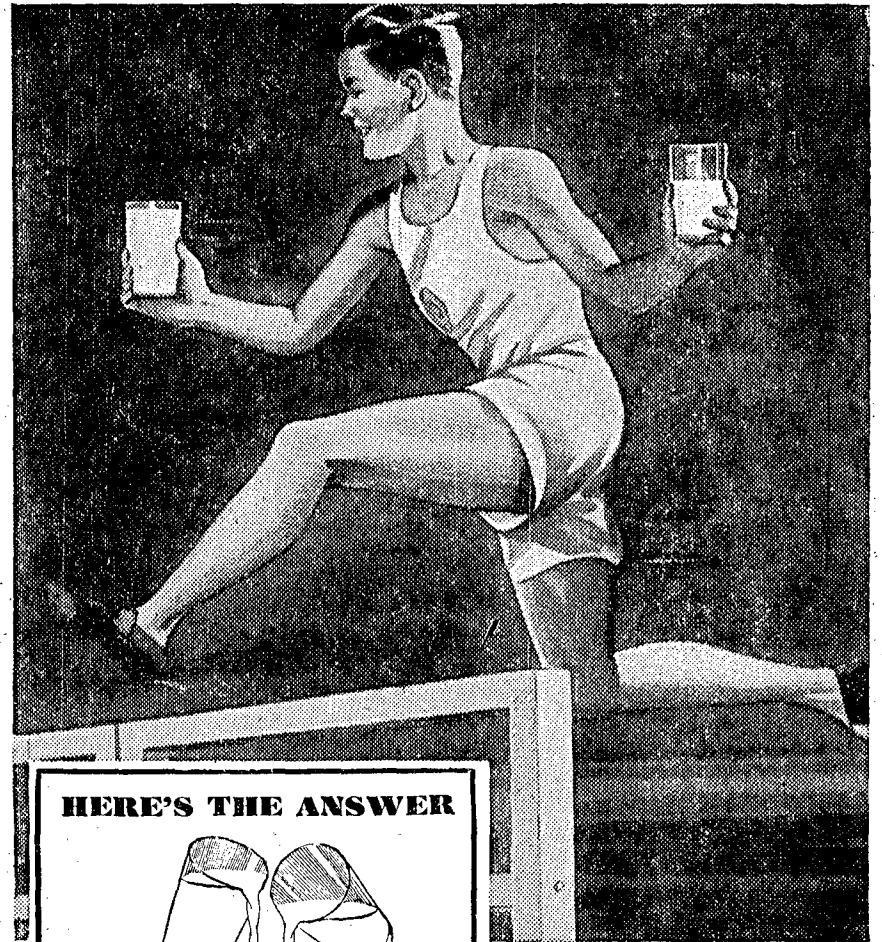
TUESDAY, 2.5 Ancient Forests of Scotland: by Sir John Sutherland. 2.30 Senior English (Introductory): by W. M. Clyde.

WEDNESDAY, 2.30 The Different Kinds of Animals—Living and Non-Living: by A. D. Peacock. 3.0 Studio Concert (Violin and Viola): arranged by Herbert Wiseman.

THURSDAY, 2.5 Time and Tune—Movement: by Herbert Wiseman. 2.40 An Autumn Walk: by A. Scott Kennedy. 3.5 Scottish History—Government by the Pen: by R. L. Mackie.

FRIDAY, 2.5 Junior Geography—Channel Crossing: by K. H. Huggins. 2.55 Junior English: A Story dramatised (The Reluctant Dragon): by Kenneth Grahame.

HOW COULD YOU— JUMP OVER A HURDLE CARRYING A GLASS AND A HALF OF MILK?



HERE'S THE ANSWER



That's easy. Everybody knows that a glass and a half of pure full-cream milk goes into every ½ lb. block of Cadbury's Milk Chocolate. So all you have to do is to slip the block into your pocket and go right ahead. Simple!

Nobody sensible walks about with a glass and a half of milk in their pockets—but a whole army of the wisest people you ever saw carry Cadbury's Milk Chocolate for their between-meal snacks. All that milk makes sure there's real energy there for you, as well as

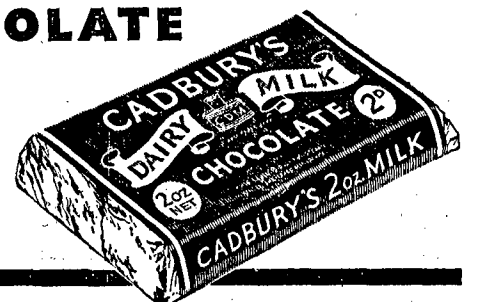
making this chocolate meltingly delicious.

The doctors say 'Eat More Often'—it makes you stronger—keeps you on your toes. Cadburys is an ideal handy snack for doing exactly that. Make sure you have some always with you.

CADBURYS

MILK CHOCOLATE

ALSO 2oz 2d



Complete in Two Parts

CLOUD BURST

CHAPTER 1

Doom Pool

If Hugh Kitley had known the River Rydd he would never have started his day's fishing in Doom Pool.

This is how it happened. Hugh, who was fourteen but looked older, had gone down to Devonshire with his father on a fishing holiday. They had rooms at Grenafon Farm close to the river, where they were very comfortable.

John Hawker, who owned Grenafon, was a fine old farmer, and his wife a plump, kindly soul. At breakfast on the very first morning of their holiday a telegram had come for Mr Kitley, asking him to go to Plymouth to meet a man with whom he did business.

He was very annoyed, and so was Hugh. "It's a horrid bother, Hugh," he said, "but I can't get out of it. It would cost me more money than I can afford. I shall be back by night, and meantime you must fish by yourself. I don't suppose you can get into any trouble and, if you do fall in, I know you can swim. Good-bye, old chap. Mind you get some trout for supper."

"I'll do my best, Dad, and I'm sorry that you have to lose a day," Hugh answered.

Then he went out to help to get the car ready. A few minutes later his father drove away, and Hugh hurried to the house to get his rod. He had been looking forward to this holiday for ages.

Half a mile from the farm Hugh found himself on the edge of a gorge some fifty feet deep, with the river running deep and black at the bottom. A little way up-stream was a circular pool, and as Hugh looked at it a heavy fish broke the smooth surface with a sullen plunge.

Thrilled with excitement, Hugh looked for a way down. He had to go some way up-stream to find it. There the cliff was not so steep and he was able to scramble down. Then he found a narrow ledge of rock along which he was able to make his way down-stream, and presently he found himself on the rim of the pool.

Hugh did not know it was called Doom Pool, nor the reason for this ominous name. No one had warned him. All he knew was that big trout lay there and that he meant to have one for supper that night, so he began to cast, using a single fly.

The surface was like black glass, there was no breeze down here, and it was so hot that drops of perspiration ran down Hugh's face. No fish rose and, though Hugh tried several different flies, nothing happened. He shook his head.

"Too bright," he said to himself. "I must try a minnow."

He took off the fly cast and put on a rather heavier one, to which he attached a small artificial minnow. Then he cast again, sinking the minnow deep in the dark water.

All of a sudden there came a tug. Hugh struck, and next moment was fighting the biggest trout he had ever hooked.

It was a long time before he saw the fish. When at last it came to the top he saw that it was a dark, ugly creature with jaws like a pike. Hugh slipped his landing net under it and lifted it out.

"A cannibal," he said. "Not much good to eat but worth setting up. Must weigh quite three pounds."

He killed it and put it into his creel, and it was not until then he noticed that he was ankle-deep in water. While he had been fighting the fish the river had risen several inches, and was now quite over the narrow ledge on which he was standing.

"Must have been a storm somewhere up on the moor," Hugh said.

Looking round, he saw that he was in a very awkward place. The ledge ended a little way down-stream and behind him was sheer cliff. The river was rising every moment. He could see it lapping upwards on the rocks.

"I'd better get out of this," he went on, and, slinging his creel over his shoulder, he stuck the landing net into its ring and started back.

He was not halfway to the spot where he had climbed down when a dull roar came to his ears. At first Hugh thought it was thunder, but it went on and on and grew steadily louder until the whole gorge was filled with the booming sound. Then suddenly a huge wave appeared around a curve a quarter of a mile above him, a wall of brown water three to four feet in height. It was crested with yellow foam and bore on its surface branches, hurdles, sticks, all sorts of rubbish,

For a moment Hugh was so scared he stood quite still, gazing horror-stricken at the monstrous flood. He saw that it would tear him off the ledge and drown him instantly. No swimmer that ever lived could battle with that thundering billow. Then in a flash he turned round face to the cliff to see if it was possible to climb.

Just above him and about as high as his head was a spur sticking out from the cliff. Hugh flung his rod on to it, then made a jump, caught the rim of the spur with both hands, and by sheer muscle power pulled himself up.

He was only just in time. As he gained his feet the wave rushed past, sending up a sheet of spray which soaked him from head to foot. The din was deafening, the sight terrifying.

When the first rush had passed Hugh found himself balanced on a small piece of rock, with the flood tugging viciously at his feet. The water was still rising, and the boy's heart was like lead, for he could climb no higher and it could be only a matter of a very few minutes before he was plucked from his hold.

CHAPTER 2

Pocket-Book Proof

ALMOST before he had made up his mind that he was done for Hugh saw the boat. It was a small, flat-bottomed craft, and as it came round the bend it was spinning like a top. No doubt it had been torn from its moorings up-stream by the flood wave, and in another minute it would be opposite.

Hope came back. Hugh thrust his precious rod into a tiny crevice behind him, whipped off his creel and tied the strap round the rod butt, then waited.

The boat was whirling like a chip in the monstrous eddies. He saw it carried right across to the far side, and was almost in despair when a cross current caught it and swept it towards him. With his heart in his mouth Hugh made a flying leap. His body struck the water, but his outstretched fingers closed on the stern of the little craft,

and he found himself flying down-stream at tremendous speed.

The current was so strong it was out of the question to climb in. All he could do was to hang on like grim death and wait until the boat reached calmer water.

The strain on his arms was terrific; but Hugh was a sturdy fellow, and almost before he knew it he was past the gorge and in wider water with lower banks. The boat swung under the far bank, and as it spun in a wide eddy Hugh managed to climb aboard.

He got a fresh shock. Flat in the bottom lay the body of a boy a bit older than himself, a nice-looking youngster with fair hair and clear complexion. His eyes were closed and he was either stunned or dead. There was not time to see which for the boat was speeding again into mid-stream. Hugh snatched up the oars, a pair of which lay in the bottom, fixed them on the thole pins, and pulled like fury for a shallow spot he saw on the north bank.

It took all his remaining strength to fight the flood, but he did it, forced the boat into slack water, and in a few moments felt her ground.

Scrambling out, he stood knee-deep, got hold of the bow, hauled the boat up on the bank, and dropped on the grass, so done he could hardly breathe.

Fit as he was, it did not take him long to recover, and as soon as his aching lungs began to work again he struggled up, and stepped back into the boat. The boy had not moved, but Hugh was relieved to see that he was breathing.

Beside him lay a worn leather pocket-book, and to save it from getting wetter than it was already Hugh picked it up and shoved it into the breast-pocket of his light jacket. Then he had a look at the boy, and the first thing he spotted was that he had a cut on the back of his head which was bleeding, though not badly. So far as Hugh could see the wound had been caused by the boy falling backward against the thwart.

He tried to revive him by dabbing water on his face, and, when this had no effect, he grew worried and decided to go for help.

The injured boy was too heavy for him to lift, so he pulled the boat up as far as he could and started up the bank.

He found himself in a grass field, and crossing this saw a gate which led into a

lane. There was no house in sight, and it looked as if he would have to go all the way back to Grenafon Farm to find help. Just then he spotted a man coming up the lane on a bicycle. Hugh stopped him.

He turned out to be William Amos, one of the hands employed at Grenafon, and, when Hugh had explained things, Amos said he would ride straight to Taverton and fetch the doctor.

"And let me tell 'ee," he said gravely, "you was surely lucky to get out of that there river alive. Doom Pool be no place to fish in storm time." Then he got on his machine and rode off full speed, and Hugh hurried back to the river.

The boat was there, but the river was still rising. Hugh ran across the field, but, instead of catching hold of the boat and pulling it farther up the bank, stopped short and stared in amazement. The fair-haired boy was gone! There was not a sign of him.

Hugh could hardly believe his eyes. He had not been away more than six or seven minutes, yet in that time the boy, who had looked more dead than alive, had either come to himself and walked off or else been taken away by someone else. But who could have come to such a lonely place without Hugh's seeing them, and, if they had come, how had they taken the boy away? There were no marks, so far as Hugh could see, near the boat.

"He must have come round, but he can't have gone far," Hugh said aloud, and was starting to search the bushes close by when a sound made him turn.

Two men were running towards him across the field from the direction of the lane.

Hugh's first idea was that Amos had met the doctor and come back with him, but as the men came nearer Hugh saw that neither was Amos, or a doctor. One was dressed like a keeper, a big fellow with a hard, square face and ginger hair, the other looked more like a gipsy, very dark with brown skin, curly black hair, and eyes black as ripe sloes. To say truth, Hugh did not much like the looks of either, but he stood his ground and waited for them.

The tall man reached him first.

"Where's young Mr Carne?" he demanded in a harsh, unpleasant voice.

"Do you mean the boy who was in the boat?" Hugh asked.

"Of course I mean the boy as was in the boat. Don't pretend you don't know."

The big man's rough manner nettled Hugh.

"How could I know his name?" he asked sharply. "He was insensible when I got into the boat. And I'm as puzzled as you to know what has become of him. He was still dead to the world when I left him to go to find help."

The tall man turned to the other.

"Someone's took him away, Seth."

Seth's sharp eyes were fixed on Hugh.

"Don't you believe it, Ed. This here is our chap. Why, see here!"

He made a grab, and pulled the pocket-book out of the side pocket of Hugh's jacket and held it up.

"It's the young fellow's wallet. You don't want better proof than that."

Ed took it and opened it.

"You're right, Seth. This here is proof. Looks like he stole it and shoved young Arthur in the river."

This monstrous accusation filled Hugh with fury.

"Put him in the river!" he exclaimed.

"You must be crazy to think I could do such a thing. This wallet was lying in the bottom of the boat and I picked it up to save it from getting wet. Of course I meant to give it back."

"A pretty story!" Ed sneered. "And how did you get in the boat? Maybe you can explain that."

"I was fishing up under the cliff when the flood came down. I thought I was going to be drowned when I saw the boat drifting down. I jumped off the ledge and caught hold of the stern. It wasn't till I climbed in that I saw the boy lying in the bottom. It was plain enough what had happened. He had had a tumble and hit his head on the thwart. I took the oars and got the boat ashore." He paused.

The two men were grinning unpleasantly, and Hugh felt almost desperate.

"Look at me," he said. "I'm all wet. That ought to prove I'm telling the truth."

"Easy enough to get wet," Seth remarked in a very nasty tone. He turned to the tall man. "He's a smooth one, Ed. I reckon we better take him along to the boss."

Ed nodded. "That's right, Seth. The master'll know how to talk to him. Anyhow, we got proof as he's a thief."

Hugh, almost frantic, tried to bolt, but he had not a chance. Ed's long arm shot out and caught him by the collar.

"Try that again and we'll tie you," he said grimly. "Now march."

TO BE CONTINUED

JACKO GETS FOUND OUT

MOTHER JACKO was checking up the laundry book.

"Four and a penny. Yes, that's right. Take off two and nine for the apron they lost, and that makes—how much does it make?" she asked.

"Two and ten," replied Adolphus.

"Two and four!" cried Jacko, doing a rapid sum on the kitchen dresser.

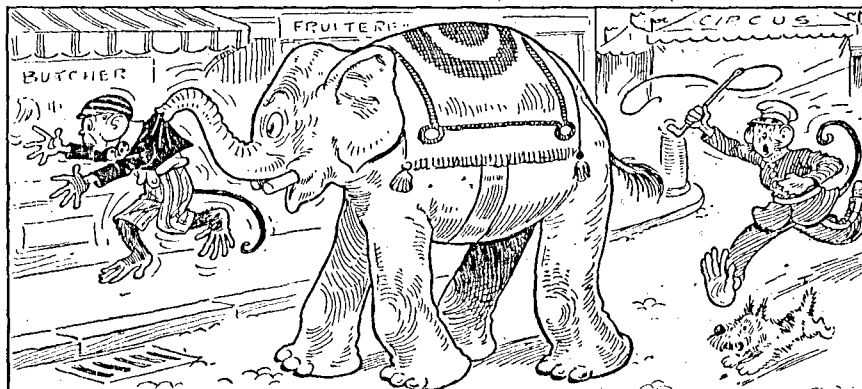
"There! I've saved you sixpence, Mater. Can I have it for the circus?"

The next morning he got the surprise of his life.

He was strolling along the High Street when, turning a corner, he came suddenly face to face with an elephant.

"Hallo!" cried Jacko genially. "I reckon I've seen you before."

The elephant had no doubt about it, but to judge from his attitude he didn't seem inclined to return Jacko's friendly overtures. With a loud trumpeting



Jacko yelled, and the keeper gave chase

"I can't see—" began his mother.

"They've got two lions and a performing elephant," interrupted Jacko.

"Well, if you won't, can I have my week's pocket-money in advance?"

Mother Jacko, perhaps to get rid of him, took a sixpence from the Toby jug on the mantelpiece and gave it to him. And Jacko ran off, his face one big grin.

The circus tent was packed when he got there, but he found a seat, and as the performance went on his grin became larger and larger. It was over all too soon. As the audience made its way out Jacko slipped behind the scenes to have one last look at the animals,

that filled Jacko with terror, he shot out his trunk, caught him up, and made off.

Jacko yelled, and the keeper gave chase. But a determined elephant takes some stopping. This one was very determined. He went on till they reached the pond, then, lifting Jacko well over the water, he let go. *Splash!*

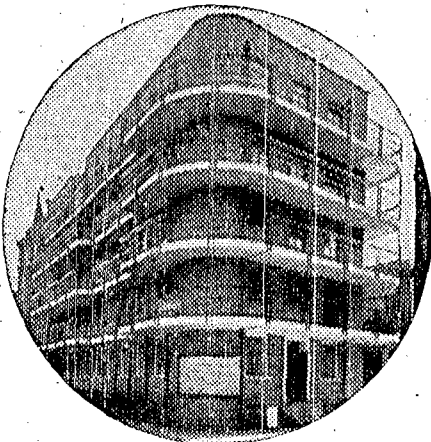
"What a brute!" spluttered Jacko, as he scrambled out.

The keeper shook his head. "Well, I don't know," he said sternly. "I reckon you must have been teasing him some time or other or he wouldn't have bothered himself about you."

And Jacko never said a word.

SEND YOUR MITE FOR OUR MITES IN THE INFANTS HOSPITAL!

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FUNDS ARE URGENTLY NEEDED

President: H.R.H. THE PRINCESS ROYAL.

Subscriptions will be gratefully received and acknowledged by the Secretary:

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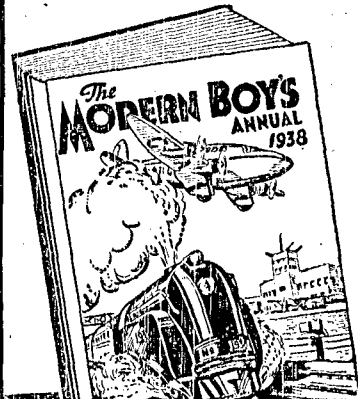
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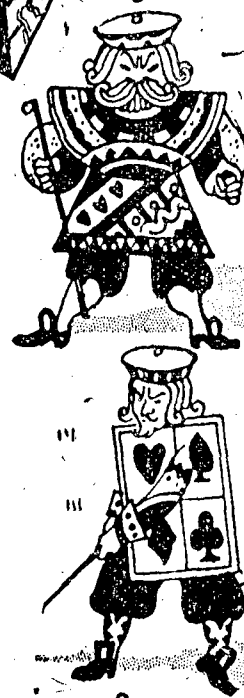
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Are you a stranger to golf—never driven a ball or been baffled in a bunker? Or are you an expert? Either way you will enjoy KARGO, the marvellous Card Game that brings to your card table all the excitement of the golf course. Even if you have no interest in golf you will find the grip of KARGO irresistible. This pack of 53 cards will entertain two, three or four players as few games can! You will discover a new thrill in putting on the green, driving from the tee and overcoming the hazards of stymie and bunker—all in your own home! This is the most thrilling card game in years. Prove it for yourself today!



Kargo CARD GOLF

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2/6

World Distributors, Castell Bros., Ltd., Manufacturers of Pepys Stationery.
Sold by all Stationers, Stores, W. H. Smith & Son's and Boots' Stationery Branches.

The Children's Newspaper will be delivered every week at any house in the world for 11s a year. See below.

CHILDREN'S NEWSPAPER

September 18, 1937

Every Thursday 2d

Arthur Mee's Children's Encyclopedia will be delivered anywhere by the Educational Book Co., Tallis Street, E.C.4.

MORE POCKET-MONEY AND FOUNTAIN PENS FOR CLEVER GIRLS AND BOYS

CAN you identify the eleven familiar things shown in the picture? It should be quite easy to do so.

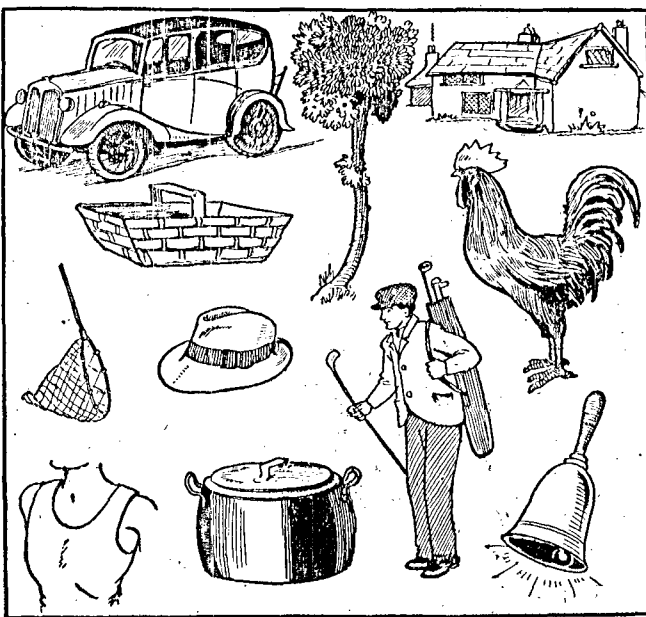
When you have named them all, take a word from the following list and place it before each name to make eleven familiar word combinations. These are the words:

APPLE COW FLOWER HAIR LIGHT RACING TEA TOP TREASURE WASTEPAPER WATER

Here is an example. The boy with the golf clubs is a CADDY. Take the word TEA from the list and you have TEA-CADDY.

Two prizes of ten shillings each and 20 gold-nibbed fountain pens are offered to the senders of correct or nearest correct lists, and in the event of ties, the prizes will go to those whose lists are the neatest-written. Allowance will be made for age when judging.

Write your list on a post-card, add your name, address, and age, and send it to C.N. Competition Number 35,



1 Tallis House, London, E.C.4 and boys of 15 or under and (Comp.), to arrive not later than first post on Thursday, Sept. 23. This fascinating entry fee and the Editor's decision is final.

THE BRAN TUB

Arithmetical Puzzle

TWICE ten are six of us,
Six are but three of us,
Nine are but four of us,
What can we possibly be?
Would you know more of us,
Twelve are but six of us,
Five are but four, do you see?

Answer next week

His Life-Work

AFTER serving his firm faithfully for fifty years an old carman was offered a pension, which he indignantly refused.

"I wouldn't have taken the job," he protested, "if I had thought it was not to be permanent."

Ici on Parle Français



La flaune pool Le crabe crab Le rocher rock
Les flaunes d'eau entre les rochers sont pleines de petits crabes.

The pools between the rocks are full of small crabs.

Other Worlds Next Week

IN the evening Mars and Jupiter are in the South-West, and Saturn is in the South-East. In the morning Venus is in the East. The picture shows the Moon at nine o'clock on Monday evening, September 20.



Mystery Quotation

HERE is a familiar quotation from Shakespeare. Can you read it?

OXXUS MAALGHIHCTE NOR

Answer next week

Peter Puck on School

FOR vulgar fractions I've no taste; They much disturb my peace of mind. I simply cannot get them right. Perhaps I need something more refined.

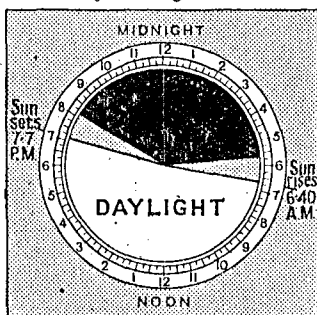
This Week in Nature

ONE of the little insects which can now be seen but will have disappeared by the end of the month is the oil-beetle. It is wingless, dull indigo blue in colour, and gets its name from

the drops of yellowish oil which come from the legs when the beetle is handled. The larva climbs into the flower blossoms, and when a bee enters for pollen gets on its back. It is then carried back to the bee's nest, and there it eats the food prepared for the bee's young until it leaves the larval stage.

What Happened on Your Birthday
Sept. 19. Dr Barnardo died. 1905
20. Magellan left Spain on voyage round world. 1519
21. Edward II murdered. 1327
22. Lord Chesterfield born. 1694
23. Bishop John Jewel died. 1571
24. Charles I defeated at Chester. 1645
25. Relief of Lucknow. 1857

Day and Night Chart



Daylight, twilight, and darkness on September 18. The daylight now gets shorter each day.

The Master and His Pupils

A SCHOOLMASTER, asked how many pupils attended his school, replied, "One half study science, one-fourth the classics, one-seventh mathematics, and there are three besides."

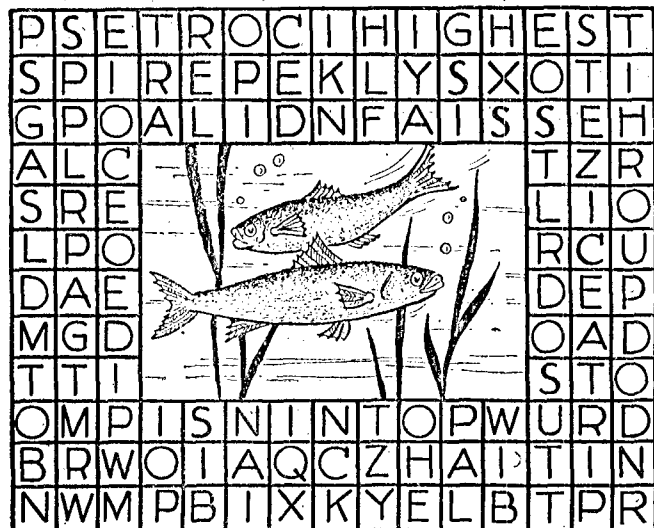
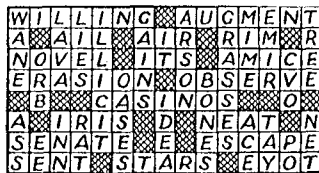
How many pupils were there in the school? Answer next week

LAST WEEK'S ANSWERS

The Inmates of the Zoo. 22 birds; 14 beasts
Beheadings. Skill, kill, ill
What is the Word? Prime

Pied Proverb. A bird in the hand is worth two in the bush.

The C.N. Cross Word Puzzle



In each of the six full lines across and down there is hidden the name of a fish, and the letters making each name appear in their proper order although not necessarily consecutively. Can you find them? Answer next week

Five-Minute Story

Biddy's Day Out

BIDDY was Farmer Jenkins's chestnut filly. During the holidays, when the farmer was busy, Robin was allowed to ride her round the large meadow. He loved doing it and was learning to manage her well.

Off they go!

Twice round the meadow, Biddy broke into a canter, Gyp following her barking. Three times round the meadow, Biddy broke into a run. Gyp barked little short barks. Four times round the meadow, Winnie the cow stopped her chewing and looked lazily round to see what all the excitement was. Five times round—but no, suddenly Biddy swerved, took the five-barred gate in fine style, and was off across the far meadow.

Robin enjoyed it, and thought Biddy would do the round of the farmlands as she did when Farmer Jenkins rode her. But Biddy kept along the footpaths and went past the men working. Robin tugged the reins, but she didn't heed this. The men waved and shouted, but it only seemed to encourage her.

Now they were on the road. Bump! bump! bump! Up and down, up and down, went Robin. Through the town and out into the country, leaving pedestrians staring and policemen raving. She was going at an easy trot now. Robin began to wonder how it would end when a police car raced alongside them and gonged! (A constable on point duty had telephoned reporting a runaway horse.) Biddy gave a delighted neigh and broke into a gallop.

She galloped until she came to a leafy lane. Then she found a certain meadow—and jumped the gate. Right across the meadow she went till she came to an old brown mare browsing contentedly. Biddy stopped beside her. The mare sniffed, looked, and then began such a whinnying and rubbing of noses!

Robin sat quite still, trying to get his breath. Then the mare nosed Biddy towards the gate. Biddy gave a little sigh and a final whinny, and jumped over again.

Back along the roadside she trotted, quite obedient to the guidance of the reins now. Robin bumped no longer. Soon they met two police cars and Farmer Jenkins. As they pulled up Biddy stopped, neighed as Farmer Jenkins spoke to her and stroked her neck, and then meekly allowed him to drive her home.

She had had her afternoon out, and was quite content to return to work.

AN INTERESTING COMPETITION

First Prize £10 Second Prize £5



THAT new bicycle you are thinking of; those books or sports gear which you want—why not try to win the money for them in this interesting competition? Every girl or boy can enter and all stand a chance of winning large money prizes.

Genozo Toothpaste will make your teeth beautifully white and clean. It does not harm the enamel AND it contains a special emulsion which protects your gums against germs.

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